

INSIDE DOPE

by GEORGE F. TUBENECK

Stories of the Week
Gags of the Week
Add Russian Stories
Add Washington Stories
A New Frontier
Add Human Interest
The Ize Have It
Incidental Information

Stories of the Week

Somewhat appalled was a neighbor when she overheard little boys ruckusing on a vacant lot.

"My rocket frirer will kill anybody in sight," boasted Tommy.

"Aa-ah, that ain't nothin'! I gotta atomic blaster that'll wreck every house around here."

(Merciful heavens, thought the neighbor, what kind of a generation are we bringing up?)

Her nerves calmed at the next juvenile warning:

"Look, fellas. No fair to throw rocks in this war."

Our favorite chronicler of important trivia, H. C. L. Jackson, relates:

Quite early Sunday morning into the neighborhood drugstore walked a boy, maybe nine years old.

He was all slicked up. His shoes glinted; his small suit wore razor-edged creases; his white shirt was white; around his neck was a tie that showed the loving artistry of a mother's knotting.

Even his hair, which hinted at being properly rambunctious, had been welded into reluctant submission by soap and water.

All of which indicated, without question, that Mister Boy was on his way to Sunday School.

He hurried over to the soda counter and said to the young woman behind it:

"Kin I please have a glass of water?"

Miss Soda-Jerker, summing up his appearance, and the earnest appeal in the big blue eyes, smiled: "You sure can."

With that, she not only drew a glass of water, but put a hunk of ice in it, and just to be sure that no overflow drops would go dribbling a-down that tenderly tied tie, she wiped the glass thoroughly, and eased it across the counter at him.

"Thanks," said Mister Boy, with which he reached in his pocket and extracted, and efficiently filled, a water pistol.

Gags of the Week

This should be a busy time for the button manufacturers: most people don't seem to have all theirs.

The art of being well-dressed for most of us is a skillful blending of the arts of make-up, make-over, and make-do.—*Today's Woman*.

A gossip talks about others; a bore talks about himself; a brilliant conversationalist talks about you.

Add Russian Stories

Two Russian archeologists ceremoniously presented Stalin with a human skull.

"We have here," they genuflected, "the skull of Socrates."

"How do you know?" grunted the mighty Stalin.

"Ah. We have proof. He confessed!"

Add Washington Stories

Harry J. Holbrook, on leave of absence from his regular job as Norge's washing machine sales manager, was a reluctant official with the National Production Authority in Washington. (Later he joined Mort Clark's lively Universal operation in Lima, Ohio.)

In the middle of a speech Harry was making to an industry group came a terrific crash at the rear of the room. A waiter had spilled a huge tray of dishes containing the main course of the dinner.

Naturally everyone in the audience craned necks rearward.

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Room Conditioner Sales Close To Million Mark?

WASHINGTON, D. C.—Room air conditioner unit sales this year will approach the one million mark.

This sales figure was revealed today by W. F. Carolan, chairman of the room air conditioner section of the Air Conditioning and Refrigeration Institute (ARI). One million unit sales, he pointed out, far exceeds pre-season estimates which ranged from 400,000 to 700,000.

The one million sales figure was determined by an informal survey conducted among members of the air conditioner section attending a recent meeting at White Sulphur Springs, W. Va. Most leading manufacturers were represented.

"All the industry's sales figures at this time are approximations. Exact figures," said Carolan, "will not be available until the newly organized room air conditioner section has collected and compiled additional data."

Carolan, who is general sales manager of RCA room air conditioners, RCA Victor Div., Radio Corp. of America, said that the compilation of statistics of room air conditioner sales at the manufacturer, distributor, and dealer levels was one of the major purposes of the section.

He said other purposes were: to establish engineering and installation standards; to discourage all false and misleading advertising; and to establish and maintain liaison between the room air conditioner industry and other related industries.

Gibson Shows 9 New Conditioners, Range

GREENVILLE, Mich. — A new nine-model line of air conditioners in five capacities and a new 1954 30-in. electric range were announced at a recent sales conference by Gibson Refrigerator Co.

These products will spark the company's new "Holiday Promotion" for refrigerators, freezers, ranges, and air conditioners which was launched at the meeting of Gibson and distributor sales executives. Introduction of the new models and the promotion are part of Gibson's new marketing and dealer development program.

This program, revealed for the first time, "develops an over-all plan of advertising and sales promotion for the year for each distributing territory," the company said.

"The program sets up the year's plan for each marketing area within the territory and provides a co-ordinated factory-distributor activity" (Concluded on Back Page, Column 1)

John D. Small Elected V.P. of Quiet Heet Mfg.

NEW YORK CITY—John D. Small, chairman of the Munitions Board, U. S. Department of Defense from 1950 to 1952, has been elected executive vice president and a director of Quiet Heet Mfg. Corp., a subsidiary of Emerson Radio & Phonograph Corp.

This was announced by Benjamin Abrams, Emerson's president, following a meeting of the Quiet Heet board of directors. Quiet Heet manufactures



John D. Small

New Educational Conference Series Planned for '54-'55; Some Changes Due

WASHINGTON, D. C.—The Refrigeration and Air Conditioning Educational Conferences and Exhibits, which have been held in past years in the interim period between All-Industry Shows, will be held again in 1954-1955, it has been announced by Air Conditioning and Refrigeration Institute.

Some changes in the conduct of future Conferences were discussed at a recent meeting in Cleveland, attended by representatives of the Refrigeration Service Engineers Society, Refrigeration Equipment Wholesalers Association, Refrigeration and Air Conditioning Contractors Association, the National Commercial Refrigerator Sales Association, and the Educational Conference Committee of the Air Conditioning and Refrigeration Institute.

The following cities were selected as possible sites for the Conferences, with the final selection to be made at a future date:

March or April, 1954

1. San Francisco or Oakland, Calif.
2. Los Angeles or Long Beach, Calif.

NARDA Protests Kiplinger Article On Discount Selling

CHICAGO — An article titled "Should You Buy From a Discount House?" which appears in the October issue of W. M. Kiplinger's *Changing Times* magazine, has aroused the ire of the National Appliance & Radio-TV Dealers Association.

In a speech before NARDA's recent regional meeting in Louisville, Ky., and in a letter to Kiplinger, Wallace Johnston, association president, protested the article in which the editor stated: "If you're willing to put up with the inconvenience, and if you know what you are buying, then discount buying is well worth the effort."

At the Louisville meeting, Johnston asserted that there "must be an end, and a quick one, to the distorted concept of the appliance business which exists in the minds of much of the public today."

Attacking the philosophy expounded by those who condone discount-house operations, he declared:

(Concluded on Page 17, Column 2)

Servel Names Schuman, Mitchell To New Posts For Appliance Sales

EVANSVILLE, Ind.—Two changes in the top-level management of the Appliance Sales Div. at Servel, Inc. have been announced by James F. Donnelly, vice president in charge of sales.

Neal F. Schuman was appointed field sales manager of the Appliance Sales Div. and Frank A. Mitchell was named general product manager.

These titles are both new in the Servel organization and reflect a realignment of executive responsibilities in preparation for a drive to capture a greater share of the appliance market, Donnelly indicated.

Schuman has been sales manager of Servel's Electric Wonderbar Refrigerette Div. since that product was first introduced in August, 1952. In his new position, he will supervise the company's field sales personnel in their relations with appliance distributors and the sale of

Fall of 1954

Cities suggested by ARI:

1. New York City
2. Newark, N. J.
3. Baltimore, Md.

Suggested by RSES:

1. Wichita, Kans.

Spring of 1955

1. Atlanta, Ga.
2. New Orleans, La.

As in the past, space for the educational exhibits will be available without charge to exhibitors at the 8th All-Industry Refrigeration & Air Conditioning Exposition.

The changes made in the general operating setup for the Educational Conferences and Exhibits include the following:

1. The event will henceforth be known as the "ARI Educational Conference."

2. Future conferences will be held on Thursday, Friday, and Saturday instead of Friday, Saturday, and Sunday.

3. RACCA, REWA, and NCRSA were invited to plan and carry on independent speaking programs or regional meetings to run concurrent with the main event.

(Concluded on Page 17, Column 1)

Frigidaire '54 Room Coolers Offer Heating

DAYTON — Introducing its 1954 "Silver Anniversary" line of room air conditioners, Frigidaire Div. of General Motors Corp. revealed that "Twin" models will be available with supplementary "High-Flow Heating" and that all units have optional thermostat control for fully automatic operation.

The new models also have improved decorative beauty with new "Coca-Rio Beige" color styling with gold and chrome trim.

Features such as these, plus balanced mounting, have been incorporated as a result of findings on recent consumer preference surveys, according to Mason M. Roberts, Frigidaire general manager and GM vice president.

Two series of models are offered—the Twin, consisting of $\frac{3}{4}$ and 1-hp. units, and the Super, with $\frac{1}{2}$ and $\frac{3}{4}$ -hp. units.

Roberts said that in 1954, Frigidaire expects "to more than double our 1953 production of these new units."

The new line, along with the company's new 3-ton year-round cooling and heating system which was recently announced, is being shown for (Concluded on Back Page, Column 4)

Sarnoff Says Electronic Conditioner Is on Way

WASHINGTON, D. C.—The electronic air conditioner is on its way, declares David Sarnoff, board chairman of Radio Corp. of America, who says he hopes that the RCA laboratories can present it to him in 1956 in celebration of his 50th year in the radio and electronics industry.

His prediction is contained in an article in the October issue of the *American Engineer*, in which he points to an electronically operated, motorless air conditioner as one of the developments in the electronics field that will revolutionize living methods in American homes.

Among his other predictions are the use of closed-circuit TV devices for use by housewives to check up on children anywhere in the house, and the use of TV hooked up in conjunction with the doorbell to permit homeowners to see who is at the door without opening it.

G-E Introduces 1954 Major Appliance Lines

Swing-Out Shelf Highlights Refrigerators; Freezer Has Ice Cream Conditioner

LOUISVILLE, Ky.—New semicircular turn-out shelves, incorporated in its two combination refrigerator-freezers, are a principal feature of General Electric Co.'s restyled refrigerator line, G-E disclosed in announcing its 1954 major appliance lines.

The company also announced that two new upright home freezer models—a 15-cu. ft. model with an in-the-door ice cream conditioner, and an 11-cu. ft. model with added convenience features—highlight the 1954 food freezer line, and that new G-E ranges will for the first time offer five deluxe features, including push-button controls, on every model.

In addition, General Electric is introducing a new clothes dryer that also will sprinkle dry clothes for ironing, and a new undercounter dishwasher that can be loaded without removal or sliding of the rack.

The new-type refrigerator shelves, which turn "Lazy-Susan" fashion, not only give table-top accessibility, but also are adjustable to varying heights, even when fully loaded, according to W. M. Timmerman, general manager of the household refrigerator department.

They can be raised or lowered in quarter-inch increments to accommodate items ranging from large dishes to small sardine cans without wasted space and permit more efficient use of shelves, he pointed out.

Besides the two combination refrigerator-freezers, the refrigerator line includes an automatic defrosting model and five manual defrosting models.

New-type door shelves which are adjustable in height to accommodate various sizes of jars and bottles and are removable for easy cleaning are included in all except the three smallest models.

Two folding racks for the horizontal storage of tall bottles at the left side of the fresh food section are included in the two top-of-the-line combination models. The two-door model also has two 4-can frozen juice dispensing racks and special spooning-temperature storage for $1\frac{1}{2}$ gal. of ice cream.

Specially designed meat pans are included in the two combination models (Concluded on Page 4, Column 1)

Rush Room Reservations For All-Industry Show, Committee Advises

CLEVELAND—With all available exhibit space taken, and the greatest variety of products ever to be exhibited at such a Show being prepared by exhibitors, final arrangements are being made to prepare for the opening of the 8th All-Industry Refrigeration & Air Conditioning Exposition, to be held Nov. 9-12 at the Cleveland Public Auditorium.

Hotel space for the period of the Show has been going fast, and those who have not made reservations as yet are urged to do so at once.

All requests for reservations during the week of the Show, hotels are now saying, should be channeled through:

Housing Bureau
Cleveland Convention Bureau
511 Terminal Tower, Cleveland, Ohio.

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Special Promotion, Hard Selling Push Admiral Sales 82% Ahead of '52

CHICAGO—Admiral Corp.'s current refrigerator sales are running 82% ahead of last year, Bert Schaefer, refrigerator sales manager, disclosed recently. The outlook for the remainder of the year continues bright, he said.

Contrary to the belief by some persons that October, November, and December are relatively quiet months for refrigerator shipments, Schaefer pointed out that there has been a definite trend to increase sales during those months.

"An average of 20% of the industry's annual sales were made in the final quarters of the past four years," the Admiral executive said.

"In 1952, final quarter refrigerator sales reached a record 23% of the year's total. It is true that the product must be promoted and merchandised to the utmost, but live-wire dealers can achieve success."

Schaefer said that Admiral's current promotion of a free \$42.95 electric blanket with every 9-cu. ft. "flash defrosting" refrigerator for a price of \$299.90—a saving of \$93.00 to the consumer—already has resulted in a 208% increase in sales of that particular model.

MORE INFORMATION?

Use Handy Coupon on "What's New" Page of this issue.
Use Key No. for fastest service.



Emerson Takes Over Control of Quiet Heat

BENJAMIN ABRAMS, president of Emerson Radio and Phonograph Corp. receives congratulations from Samuel L. Peters, President of Quiet Heat Mfg. Corp., after the signing of the contract which gave Emerson majority control of the Quiet Heat firm. Looking on are officers and executives of both companies. The newly-acquired Emerson subsidiary will produce room and house air conditioning units to be marketed under Emerson's name and will continue to manufacture and market air conditioners under its own name.

\$20, \$5, \$10 Coupons Push Used Appliance Sales

TWIN FALLS, Idaho—C. C. Anderson department store's appliance department here increased action on its "tested, approved, and guaranteed" used appliances with a triple coupon offer.

An advertisement advertising the offer included three separate coupons worth \$20, \$5, and \$10.

The \$20 coupon could be used by

the purchaser on the purchase of any used appliance priced at more than \$100. The \$5 coupon was worth that much on the purchase of any used appliance of \$50 or less, and the \$10 coupon was worth \$10 on the purchase of any used appliance in the store priced from \$50 to \$100.

The appliances were ranges, refrigerators, washers, and oil heaters.

So. Calif. Contractors Plan 11-Point Program At Oct. 28 Meeting

LOS ANGELES—Gradual elimination of the "loaning" or giving away of refrigeration equipment to retailers by companies engaged primarily in the sale of other merchandise is one of 11 proposed new objectives for the Refrigeration & Air Conditioning Contractors Association of Southern California, Inc.

The suggested activities will be presented at a general membership meeting of the group to be held Wednesday evening, Oct. 28, at the Mayfair hotel here. All refrigeration contractors, whether members or not, are invited.

In addition to new aims, a primary subject of the dinner meeting will be "Our Relations with the National Association of Refrigeration and Air Conditioning Contractors," it was announced.

The local group's current bulletin points out: "It is just two years since the association developed a well-rounded program to further the refrigeration and air conditioning industry in this area. Many of these objectives have been attained and it is now time for the association to develop a series of new objectives."

Future activities of the group were considered by a special committee composed of Bill Eby of York Corp., Bob Noll of Commercial Refrigeration, Don Beck of Kilpatrick & Co., Don Kissell of Kissell Refrigeration, and Henry B. Ely, executive secretary.

To be presented at the Oct. 28 meeting, in addition to the objective noted above, will be the following activities:

"1. Continued progress in the educational campaign to the end that wholesalers' and manufacturers' agents do not unfairly use their discount in selling to consumers.

"2. Cooperation with the Construction Employers' Council of Los Angeles in creating a voice for the construction industry of southern California in legislative matters, labor relations, relations with the public and with governmental agencies.

"3. Stepping up of a campaign to eliminate special registration fees for refrigeration and air conditioning contractors and examinations for journeymen by cities and counties.

"4. Campaign to the end that holders of a state refrigeration license or air conditioning license obtain supplemental licenses with the same ease that holders of other licenses obtain the refrigeration and air conditioning license.

"5. Insistence on a program for the national association that will place special emphasis on the relations between the national association and the national manufacturers, including their warranties, the national's relations with other trade associations, the national's interest in the safety code as it relates to contractors, proper grouping of specifications, and other subjects for the national to undertake on a nationwide basis.

"6. Enforcement of the state contractors' license law with relation to the licensing of refrigeration and air conditioning contractors.

"7. The advisability of the adoption of trade practices with relation to the public.

"8. Elimination of deceptive practices by unqualified contractors.

"9. Development of home air conditioning for members.

"10. Bi-monthly meetings of the membership."

Ed Ward Forms New Food Market Supply Firm

FORT WAYNE, Ind.—Ed Ward of Baker-Ward, Inc., South Bend, Ind., announced recently that he has formed a new corporation in Fort Wayne and Lima, Ohio, operating under the name of K & W Market Equipment, Inc.

John B. Knuth, formerly merchandising manager and store engineer for Baker-Ward, is general manager and secretary-treasurer of the new company, which will specialize in outfitting food markets. The new firm has been appointed distributor of Hussmann commercial refrigeration and Typhoon air conditioning equipment and Fogarty steel shelving.

It was also announced that Don Baker, Jr. has been named general sales manager of Baker-Ward.

Kershaw Covers 5-State Territory for La Crosse

LA CROSSE, Wis.—La Crosse Cooler Co. has announced the appointment of Robert J. Kershaw as its new representative in Texas, Oklahoma, Mississippi, Louisiana, and Arkansas.

Kershaw, who has had considerable experience in the commercial refrigeration field, will cover the territory from his office in Dallas. He will represent La Crosse's entire line of refrigeration equipment.

"Mr. Kershaw's past experience will also qualify him to assist in merchandising the company's new 'Kube King' automatic ice machine as well as a contemplated room air conditioning unit," the announcement said.

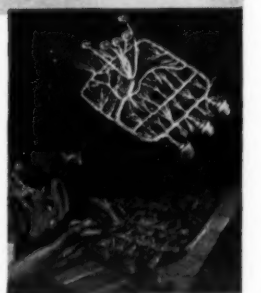


IT MAY BE "Lovely To Look At" But If The Wiring Fails... So Does Your Reputation
Be Sure... Demand UNILECTRIC Wiring Systems in the products you sell

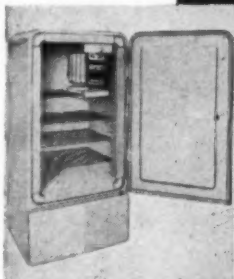
For over 10 years UNILECTRIC has been "Wiring Headquarters" for the nation's electrical industry. Over 130 leading manufacturers of refrigeration and other electrical appliances protect their products with UNILECTRIC Wiring Systems. Be sure of dependable performance in the products you sell by demanding UNILECTRIC Wiring Systems.

There is only ONE Standard of Quality at UNILECTRIC

This intricate wiring harness for a jet auto pilot must meet the most rigid specifications. A pilot's life and perhaps a major battle depend on it.



The same workmanship... the same standards of quality protect your product wiring and your product's reputation for dependability.



BE SURE Make the UNILECTRIC Quality Standard YOUR Standard

Why don't you investigate?



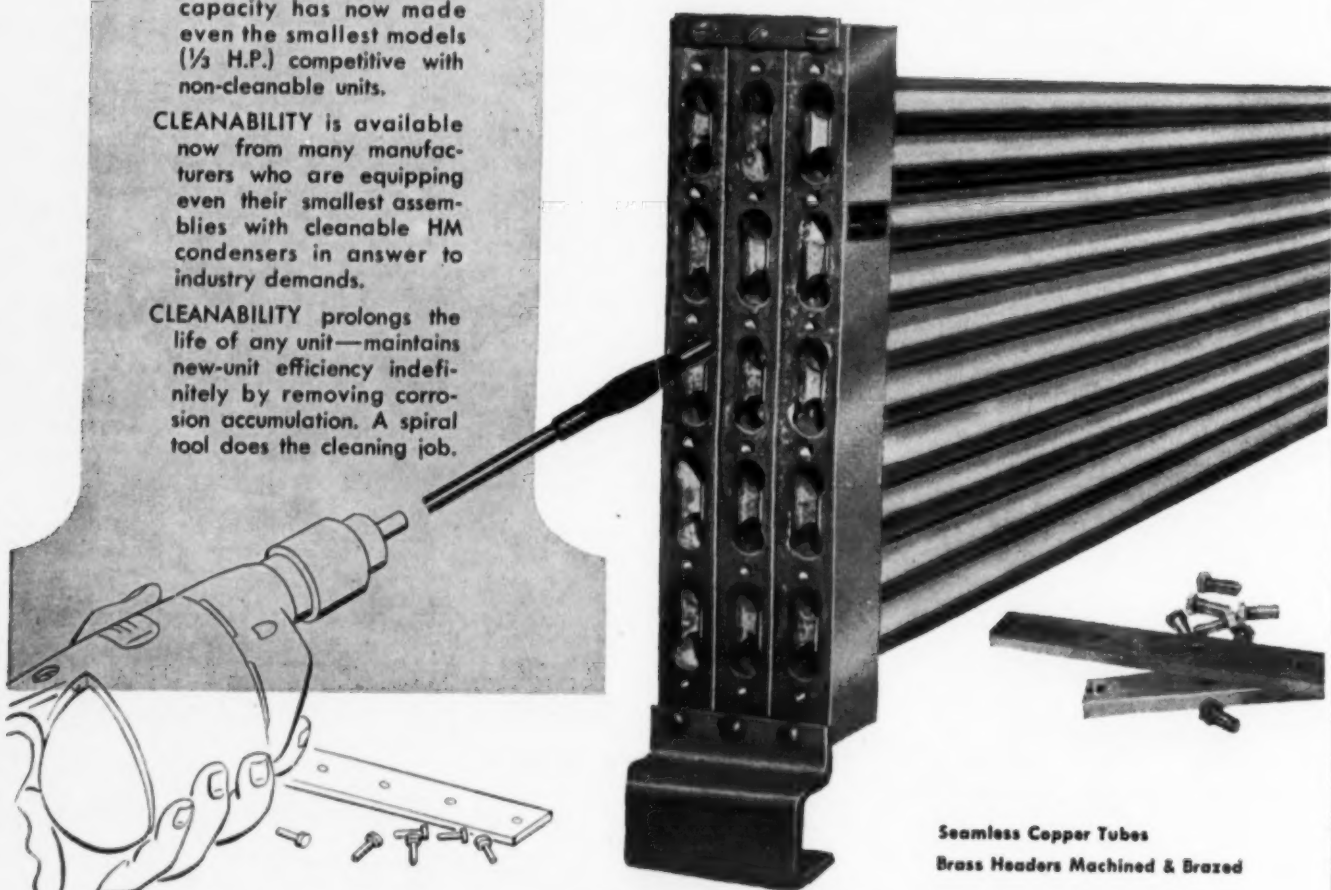
Your No.1 DEMAND... the CONDENSER must be CLEANABLE

Because...

CLEANABILITY costs no more in the new HM condensers. Tremendous productive capacity has now made even the smallest models (1/2 H.P.) competitive with non-cleanable units.

CLEANABILITY is available now from many manufacturers who are equipping even their smallest assemblies with cleanable HM condensers in answer to industry demands.

CLEANABILITY prolongs the life of any unit—maintains new-unit efficiency indefinitely by removing corrosion accumulation. A spiral tool does the cleaning job.



Seamless Copper Tubes
Brass Headers Machined & Brazed

Why not insist that your next unit have a CLEANABLE water-cooled condenser?

Especially since leading manufacturers, one after the other, are recognizing the "must" advantages of accessibility to cleaning and are equipping their units accordingly.

They realize that initial purchase cost is no higher, and longer life and more economical performance are guaranteed. The CLEANABLE feature

enables you to recover new-unit efficiency and thus maintain 100% economical operation indefinitely.

In Halstead & Mitchell Cleanable Condensers, water tubes are accessible from both ends on all size models

1/2 through 25 ton—all water cooled, double tube, counter flow.



Halstead & Mitchell

Wholesalers in Principal Cities—Write for descriptive literature

HACO PROTECTIVE COVERS for Air Conditioners

HACO COVERS

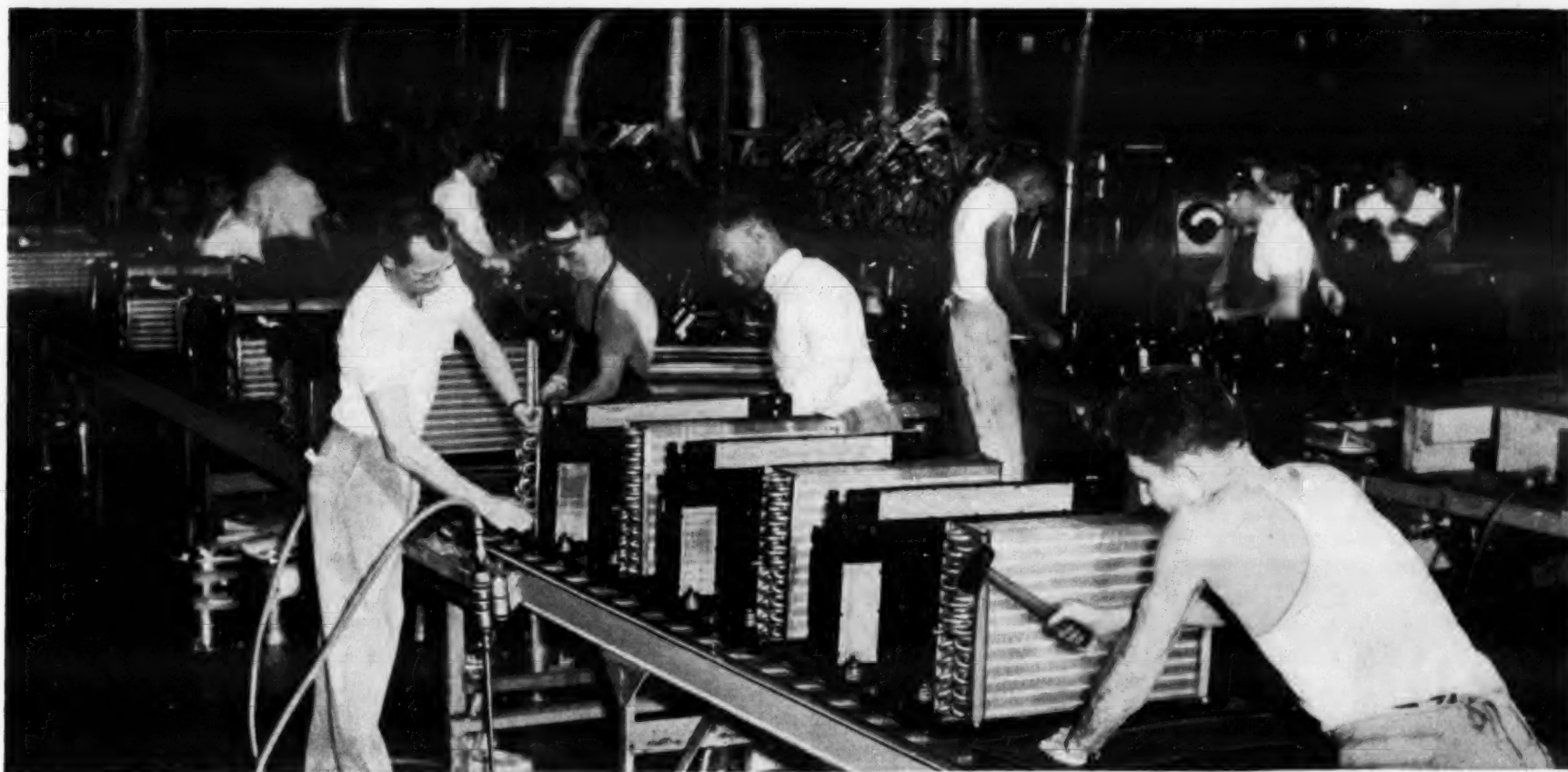
- Available in two sizes, large and small.
- Made of Finest Quality Water-proof Materials.
- Sturdily constructed—seams are tear resistant.
- Easily installed—no fittings or stiffeners required.
- Fast selling—and profitable.

WRITE or TELEPHONE IMMEDIATELY
SKyline 1-3959

HEIGHTS Air Conditioning Cover Co.
3607 HILDANA CLEVELAND 26, OHIO

DEALERS CHEER PROFIT-MAKING EXTRAS OF FRIGIDAIRE ROOM CONDITIONERS

ONE: Expanded Production Facilities Assure Full Profits—No Missed Sales



Frigidaire Plant 4—where production capacity of room units has been stepped up tremendously over the record-breaking 1953 sales, as consumer preference for Frigidaire continues to grow at a rapid pace. Here, a quarter-million sq. ft. of manufacturing floor

space is devoted to production of Frigidaire Room Air Conditioners. Manufacturing facilities include the most modern up-to-the-minute production and inspection equipment and more than two miles of overhead conveyors and conveyor track.

Here's the inside story on why the Frigidaire Room Air Conditioner line offers the greatest money-making potential in the industry.

Here are but six of the many major reasons why Frigidaire Dealers value their Frigidaire franchises . . . and why they're concentrating sales effort on one brand—Frigidaire. For only in Frigidaire can they offer such outstanding economy, top quality, and dependable performance. Only in Frigidaire can they sell the built-in value that means real and lasting customer satisfaction.

TWO: Profit from outstanding sales promotion and training!

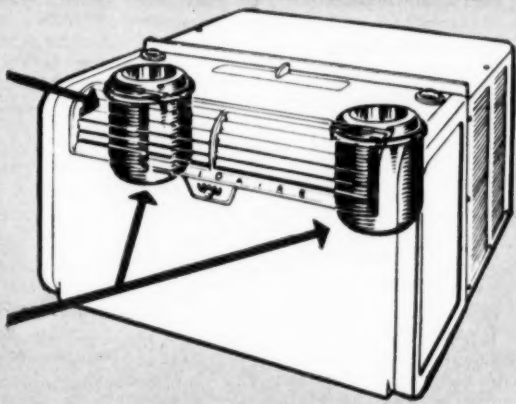
Drawing on a wealth of experience in the sale of both home appliances and commercial products, Frigidaire sparks dealer sales activity with successful promotional plans and selling ideas. Salesmen are equipped with all necessary sales tools, including films and demonstrating aids. And, as the very basis of effective salesmanship, Frigidaire provides a comprehensive training program—based on proved selling techniques, and keyed to current selling conditions.

THREE: Profit from the greatest consumer-benefit selling features ever offered

TWIN COOLING SYSTEMS—LIKE TWO AIR CONDITIONERS IN ONE!

ONE cooling system provides ample cooling, filtering and dehumidifying at half the operating cost during moderate weather.

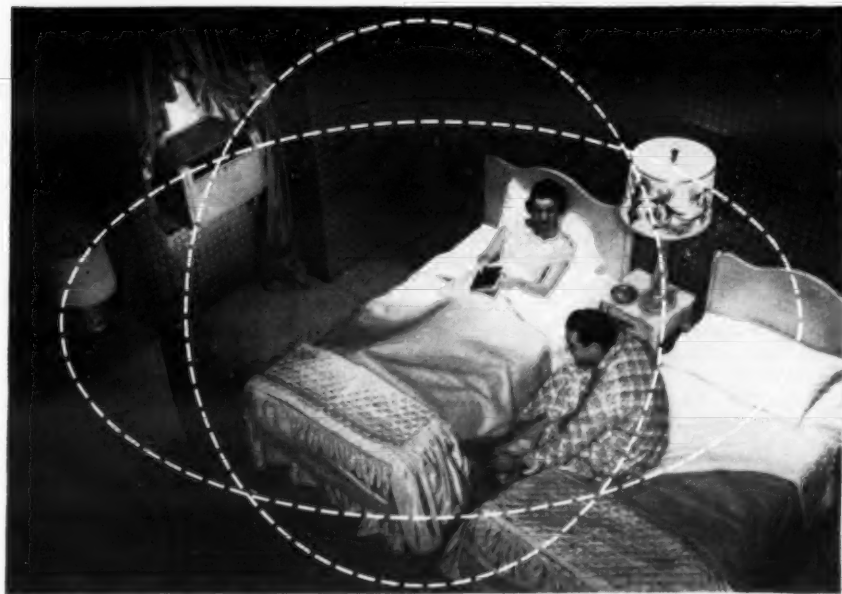
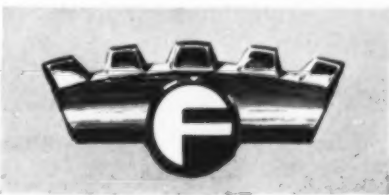
TWO cooling systems team up to double cooling power economically when temperatures soar. No risk of undercooling . . . no risk of overcooling.



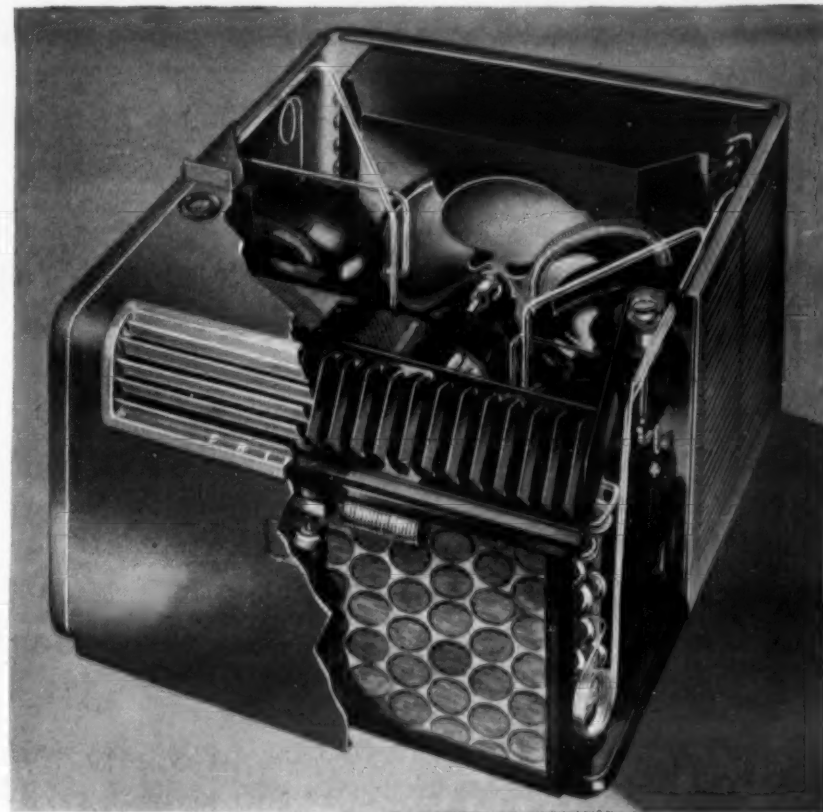
Armed with a double-barrelled exclusive feature story, *Twin Meter-Misers* and *Great Circle Cooling*, Frigidaire Dealers can fire a sales-winning salvo that hits the mark, that gives them the assurance of profit-making victory in the big battle for sales. *Twin Meter-Misers* offer great economy, flexibility and give dealers the chance to "trade up" the customer who wants the finest in air conditioning at its carefree best. Exclusive *Great Circle Cooling* gives the dealer the inside track with its up-and-around circulation that puts *all* the air into *all* the room regardless of window location.

FOUR: Profit from sales-making national and local advertising support

A supercharged avalanche of ads, promotions and merchandising will be backing up the new 1954 Frigidaire Room Conditioners in the biggest advertising effort ever put behind these great products. Magazines, newspapers, television, radio and direct mail will pre-sell Frigidaire Room Conditioners and bring multitudes of customers right into the store ready and willing to buy.



Here is how exclusive *Great Circle Cooling* will be dramatized for your customers—to demonstrate how Frigidaire tailors the airflow to the exact size and shape of any room.



FIVE: Profit from the extra built-in value that means immediate sales and complete user satisfaction

Frigidaire Dealers have the finest value-per-dollar story in the industry, for every part of a Frigidaire Room Conditioner is Frigidaire-made and Frigidaire-assembled for unmatched quality. The Meter-Miser compressor, famous the world over, gives years of economical, trouble-free service. The full-width, full-height filters mean more efficient air cleaning, less air restriction, less

frequent replacement. The efficient centrifugal blower type squirrel cage fan and heavy duty insulation team up to assure the utmost in quiet operation. The large size cooling coils provide full cooling capacity at low cost. All are part of the unseen, "inside" story that makes Frigidaire value so outstanding. As a result, Frigidaire Room Conditioners provide more cooling at lower cost.

SIX: Profit from the sales magic of the best established name in refrigeration

The sparkling new line of 1954 Frigidaire Room Conditioners reflects the broad experience gained since Frigidaire built and sold the first room air conditioners nearly 25 years ago. Because the name Frigid-

aire has always stood for quality, the very name itself is a selling feature. Millions know when they buy Frigidaire, they buy the best . . . and Dealers know when they sell Frigidaire, they sell the best!

Frigidaire Conditioners

BUILT AND BACKED BY GENERAL MOTORS

Frigidaire Division of General Motors, Dayton 1, Ohio



LEFT: Heading G-E's restyled 1954 refrigerator line is this two-door combination refrigerator-freezer, model LH-121. Among features are new semicircular turn-out shelves, adjustable door shelves, folding racks for tall-bottle storage, frozen juice dispensing racks, special storage for ice cream, and "Mini-Cube" ice tray. RIGHT: Photo shows how semicircular shelves rotate outward for fresh food accessibility.



G-E Introduces '54 Major Appliance Line--

(Concluded from Page 1, Column 5) els and the automatic defrosting refrigerator.

To provide the convenience of small-size ice cubes—a demand for which has been indicated by a survey—a new four-row "Mini-Cube" ice tray is included in the two combination models and the automatic defrosting model. The new tray has the same dimensions as the "Redi-Cube" tray, but produces half-size cubes and has an improved quick-

release mechanism.

Door-panel interiors and breaker strips of the four largest manual defrosting models are finished in a pastel green color. Extensive use of exterior copper trim has been made throughout the line to provide greater eye-appeal.

Describing the Refrigerator-Freezers, G-E explained that the semicircular turn-out shelves pivot around a stainless steel shaft located about two inches back from the front of

the cabinet. The shelves have a raised edge to prevent spillage.

The two-door LH-121, with a capacity of 12.1 cu. ft., has three of the turn-out shelves and the single-door LM-100, with a capacity of 10 cu. ft., has two. The top shelf in both models is rectangular and removable.

Other features of the two-door model are the ice cream rack that holds two half-gallon and two pint containers, and the two 4-can dispensing racks for frozen juices in the freezer compartment door.

Both refrigerator-freezers have the two folding bottle racks at the left

side of the fresh-food section, a specially shaped aluminum meat pan to fit any of the turn-out shelves, the "Mini-Cube" ice tray, an adjustable-temperature butter conditioner, two half-width vegetable pans, and adjustable and removable door shelves.

The freezer compartment of the two-door model has a separately refrigerated ice tray shelf, a maximum frozen food storage capacity of 77 lbs., and an automatic interior light. The freezer compartment of the single-door model can store up to 42 lbs. of frozen foods.

At the top of the fresh food section of each of the combination models is a downward tilted refrigerated coil. This coil, called the "Temperator," defrosts automatically, without use of heaters or timers, after each running cycle.

The automatic-defrosting refrigerator, the 11.3-cu. ft. LD-113, has an across-the-top freezing compartment with side-hinged latching door. Maximum storage capacity of the freezing compartment is 39 lbs. of frozen foods.

It also has a porcelainized steel meat drawer fastened to the underside of a sloping aluminum baffle beneath the across-the-top evaporator, a "Mini-Cube" ice tray, butter compartment, two half-width vegetable pans which can be stacked, and adjustable, removable door shelves.

This model has four cabinet shelves, two of which are sliding and adjustable, and four removable door shelves, three of which also can be adjusted.

Defrosting is accomplished by means of a sealed heating unit built into the across-the-top evaporator. The unit is turned on automatically by a frost-limiting device whenever defrosting is necessary.

Of the four largest-size manual defrosting refrigerators, two are of 9.2-cu. ft. capacity and the other two are of 7.6 and 7.7-cu. ft. capacity respectively. Each has a full-width chiller tray directly beneath the across-the-top evaporator.

FREEZER COMPARTMENTS VARY

The freezer compartments of the 9.2-cu. ft. models have a maximum capacity of 39 lbs. of frozen foods. Those of the other two models can hold up to 22 lbs. of frozen foods.

The deluxe 9.2-cu. ft. model, the LB-92, has two half-width stacking vegetable pans, and three door shelves, two of which are removable and adjustable, the third removable.

The standard model, the LA-92, has one half-width vegetable pan and two removable and adjustable door shelves. Both models have three full-width cabinet shelves, two of which are adjustable.

The deluxe 7.6-cu. ft. model, the LB-76, differs from the standard model, the LA-77, in that it has a full-width vegetable pan, three door shelves, an additional quarter-shelf in the cabinet, and deluxe interior trim. The LA-77 is the apartment house and builder model.

A 4-cu. ft. undercounter model, the NB-4, is designed for small apartments. It has a chiller tray, and a work surface top.

"The square construction of this refrigerator makes it especially suitable for built-in installations," G-E said. "Because the condenser is cooled by air drawn in and expelled at the front of the cabinet, this refrigerator can be built-in without clearance on the sides, back, and top."

The manufacturer's tentative recommended national retail prices of the refrigerators are:

LH-121—12.1-cu. ft., two-door, combination refrigerator-freezer, \$549.95.

LM-100—10-cu. ft., single-door combination refrigerator-freezer, \$449.95.

LD-1113—11.3-cu. ft., deluxe, automatic defrost refrigerator, \$429.95.

LB-92—9.2-cu. ft., deluxe, manual defrost refrigerator, \$299.95.

LB-76—7.6-cu. ft., deluxe, manual defrost refrigerator, \$239.95.

No recommended national retail price was given for the LA-92 (9.2-



G-E's new 15-cu. ft. upright freezer.

cu. ft., standard, manual defrost refrigerator), the LA-77 (7.7-cu. ft., standard, manual defrost refrigerator), or the NB-4 (4-cu. ft., manual defrost refrigerator).

In addition to the two new upright models, the 1954 food freezer line includes two chest-type freezers, in 11 and 7-cu. ft. sizes, according to Harold B. Donley, general manager of the specialty refrigeration products department. He noted the use of green and copper color in the trim of the new freezers.

ICE CREAM CONDITIONER

The ice cream conditioner in the 15-cu. ft. upright model can hold as much as 1½ gal. of ice cream in half-gallon containers at a temperature proper for scooping consistency.

This model, the HU-15, has the same outside dimensions as last year's 14-cu. ft. upright freezer, Donley said. The additional cubic foot of storage space is in the recessed door-panel of the new model.

The 11-cu. ft. upright freezer, model HU-11, has a special door shelf, called a "Tilt-Stor," which can be tilted outward for easier access to packages placed one behind the other.

Both of the two upright freezers have a door shelf designed to permit stacking of standard-size frozen food packages at a 45° slant for easy content identification and maximum accessibility. They also have two extra deep door shelves, frozen juice can dispensers in the door, two removable baskets mounted on nylon rollers in the cabinet, and a trigger-action locking latch.

3 REFRIGERATED SHELVES

Both have three refrigerated shelves in the cabinet. The 15-cu. ft. model has, in addition, two adjustable, sliding shelves; the 11-cu. ft. model has one such shelf. The larger freezer has a refrigerated storage well at the base of the cabinet for odd-shaped packages and bulk storage.

The 15-cu. ft. model also has automatic interior lighting and an outside signal light to indicate proper functioning of the refrigerating unit.

The 7-cu. ft. chest-type freezer, model HA-7, is divided into two sections by horizontal slide rails. The two removable baskets in the top section do not have to be lifted out, but simply slide to one side when food from the bottom section is required.

Slide rails, three removable baskets, and a thermometer may be purchased by the customer for installation in the 11-cu. ft. chest-type model, the HC-11, together with two adjustable, vertical dividers for the creation of three lower storage sections after slide rails are installed. The dividers can be attached to the rails and are easily removed.

The manufacturer's recommended national retail prices are: HU-15 (upright), \$519.95; HU-11 (upright), \$399.95; HA-7 (Chest), \$299.95. No recommended national retail price was listed for the HC-11 chest-type freezer.

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*A PATENTED PROCESS NO. 22485.

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Room Cooler Sales

Texas Utility's Survey Indicates That Big Portion Of Market Is Located In Southwest Area

DALLAS—One of the most comprehensive studies ever to be made of air conditioner sales and distribution and future market potentials, has been prepared by the Industrial Development Department of the Texas Power & Light Co.

The study offers some rather startling conclusions about the geographic distribution of room air conditioner sales in particular, and is one of the first public analysis of the well-known "climatic" factor in air conditioning sales to see the light of day.

PURPOSE OF SURVEY

The Texas utility is very frank about the purpose of the study. J. Cal Courtney, Industrial Consultant for T P & L, who has made himself one of the best-informed men in the country on the air conditioning market by continuing studies and interviews in the field, points out this two-fold purpose:

First, Texas Power & Light is faced with the problem of how best to handle the added seasonal load caused by the use of refrigerated air conditioning units. Secondly, the company thinks it has a story to tell of economies of manufacturing and distribution that might be obtained by locating air conditioning manufacturing plants in the territory which it serves, and it also believes that such a move would result in savings to both manufacturers and consumers.

MAIN POINTS OF STUDY

Main points made in the study are these:

1. More than 25% of room air conditioner sales in 1952 were made in Texas and more than 44% were made within 500 miles of a city in TP&L's 52-county service area.

2. No manufacturer can distribute his products on a national basis from his present location as economically as it can be done from the "Texas

Bright Spot," which is what the utility likes to call the area it serves.

In projecting the market through 1960 the study shows room unit sales of 2,250,000 units by that year. Of this number, some 900,000, or 40%, will be sold within the 500-mile area centered on the territory served by the utility, the company predicts.

The study points out that the purchaser of a window unit in the "Texas Bright Spot" trade area is now paying an average of \$5 more per unit than would be necessary if the units were manufactured in this Texas territory.

FREIGHT RATES COMPARED

In the actual freight rate analysis part of the study, it is stated that based on projected markets, average savings of at least \$4.84 per unit would be realized by distribution of units sold in the Texas freight territory from a manufacturing plant in the "Texas Bright Spot."

Courtney realizes that the argument may be presented that freight rates on incoming materials and components might in some measure counterbalance these savings on shipments of finished products, and thus he is encouraging producers of components for air conditioners to set up plants in the territory, as well as manufacturers of complete end products.

The study is loaded with all kinds of statistical data and information of the following kind: room air conditioner sales by states and freight rate territories; market projection by certain areas through 1960; population and income trends; figures on new construction; a table of average daily maximum temperatures by states; freight rates studies; and a discussion of taxes and the labor situation in Texas.

Those who wish to get the details furnished in the study may address a request to J. C. Courtney, Texas Power & Light Co., Dallas.

Projected Sales Refrigerated Room Air Conditioning Units 1953 through 1960

	1952	1953	1954	1955	1956	1957	1958	1959	1960
U. S. Total	407,112	700,000	1,000,000	1,250,000	1,500,000	1,700,000	1,875,000	2,050,000	2,250,000
Texas Freight Territory	268,059	553,000	700,000	887,500	1,080,000	1,224,000	1,368,750	1,537,500	1,672,200
(Percent of U. S. total)	65.8%	69%	70%	71%	72%	72%	73%	75%	76%
"Texas Bright Spot" Trade Territory	179,714	308,000	440,000	562,500	675,000	765,000	825,000	881,500	900,000
(Percent of U. S. total)	44%	44%	44%	45%	45%	45%	44%	43%	40%

Dennison, Crites Named To New Remington Posts

AUBURN, N. Y.—Appointment of W. H. Dennison as West Coast regional manager for Remington Corp., manufacturer of room air conditioners, was announced recently by M. L. Judd, general sales manager.

At the same time, Carl F. Zauner, Remington's national service manager, announced the appointment of John C. Crites as service representative for the southeastern part of the country.

Dennison, whose office is in the Worth building, California Ave., Palo Alto, Calif., has held executive sales positions over the past 20 years with Gibson, Borg-Warner, and Chrysler Airtemp.

Crites, whose background includes several years in the air conditioning field, will supervise service of Remington window and console units in Florida, Georgia, North and South Carolina, and Virginia.

The appointments are part of Remington's national sales and service expansion program for 1954, it is pointed out.

11 Room Coolers Go In Mass. Mutual Offices

MINNEAPOLIS—Eleven window-type room air conditioners have been installed in the Minneapolis offices of Massachusetts Mutual Life Insurance Co. in the Northwest Bank building, it is reported by Dakota Coal Co., United States Air Conditioning Corp. dealer in Minneapolis. The units are equipped with built-in thermostatic control.

Thompson Products Buys Bell Sound Systems

CLEVELAND—Purchase of Bell Sound Systems, of Columbus, Ohio, well known in the sound reproduction business, has been announced by J. D. Wright, president of Thompson Products, Inc., Cleveland manufacturer of aircraft, automotive, and electronics parts.

The move marks Thompson's entry into the commercial electronics field. The Columbus company, founded by Floyd W. Bell 20 years ago, pioneered with public address systems, and fol-

lowing World War II, expanded into new lines. Today it is a prominent manufacturer of high fidelity amplifiers and tape recorders.

Bell's commercial operations do not conflict with existing activities of Thompson Products in the electronics field.

Thompson Products now has a firmly established base in both the commercial and military electronics fields, and hopes to expand in both of these directions, the company said.

Cooling Job Finished Late But County OK's Payment

DALLAS—Although the air conditioning project at the County Juvenile Detention Home was finished three months after the scheduled completion date, County Commissioners recently agreed to make a final payment of \$3,648 to Lone Star Air Conditioning Co.

Engineer Herman Blum, consultant for the county on the project, suggested to commissioners:

"Let's have a nice penalty clause on the next county job. This project had a May 15 completion date."

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These new LAUSTEEL Variable and Constant Speed Pulleys are being used in thousands of installations with lasting, uniformly good results. They are built to unvarying standards for maximum efficiency and length of service.

Variable Speed LAUSTEEL Pulleys

Available with 3 standard bores, allowing speed variations up to 30%, assuring noiseless, efficient operation.

Write for Catalog Page 707-13

DIMENSION CHART—variable speed pulleys

pulley size	A outside dia.	B pitch dia.		C std. bore	D	E		material
		min.	max.			min.	max.	
VS3	3.25	2.1	2.9	1/2 * 3/8 * 3/4	1 1/2	1 3/8	1/2 3/8	Steel

* 3/8 & 3/4 bores have std. keyway. Variable speed pulley has 3/16 - 18 hollow hd. set screw.

Constant Speed LAUSTEEL Pulleys

LAUSTEEL Constant Speed Pulleys are suitable for both "A" and "O" section belts—available in diameters of 6" to 10" inclusive.

DIMENSION CHART—constant speed pulleys

Pulley Size	A Outside Dia.	Pitch Dia.	B Std. Bore No. Keyway
6"	6 1/16	5.8	3/8 & 1
7"	7 1/16	6.8	3/8 & 1
8"	8 1/16	7.8	3/8 & 1
9"	9 1/16	8.8	3/8 & 1
10"	10 1/16	9.8	3/8 & 1
11"	11	10.65	1 & 1 1/16
12"	12	11.65	1 & 1 1/16
14"	14	13.65	1 & 1 1/16

Pulleys have 3/16 - 18 sq. hd. set screw

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See page 12



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Set Your Table for Less Is Theme of Utility's Freezer Campaign

ERIE, Pa.—"Set Your Table For Less With An Electric Home Freezer." That was the theme of a freezer promotion staged by Pennsylvania Electric Co. and brought to the residents of Erie through an institutional type newspaper advertisement.

The power company urged homemakers to "take the first step toward better, less costly meals. Visit your electric appliance dealer now."

Ad copy read:

"Food costs, like the weather, change from day to day. But fruits, meats, and vegetables are cheapest when they are in season. Take advantage of this yearly price fluctuation to provide more food for less money.

"Prime and choice beef is in best supply in the spring, cheaper cuts in the fall. Lamb is most plentiful in late summer, veal in early summer, and pork is at its best and most economical in January and February. It's best to buy all fruits and vegetables at the peak of their season.

"Yes, you can set your table for less when you buy for less and store the best way—with an electric home freezer. And, too, you have the wonderful convenience of always having foods on hand for special occasions and unexpected guests. Begin now to live better—with an electric home freezer."

Manitowoc Picks Clausen As District Sales Manager In 3 Western States

MANITOWOC, Wis. — George W. Clausen has been appointed district sales manager for Manitowoc Equipment Works, according to Erle S. Brown, sales coordinator.

He will direct Manitowoc home freezer sales activity in California, Arizona, and Nevada.

Clausen was formerly general merchandise manager of Hibbard, Spencer, Bartlett & Co. in Evanston, Ill., and has been associated with Alden's, Inc. He also served as a consultant to the Consumers Durable Goods Div. of the War Production Board.

For the past three years, Clausen has specialized in sales and market research consultant work on the West Coast.

G-E Offers Assortment of Freezer Packaging Items

LOUISVILLE, Ky.—A complete assortment of food freezer packaging materials is being made available to General Electric major appliance dealers through their network of distributors.

The assortment consists of quantities of 15 items, including a variety of plastic food boxes and bags, sealing tape, and wrapping supplies, which are designed to be sold by dealers at competitive prices.

S. G. Stevens, manager of marketing for the specialty refrigeration products department, said that the packaging supplies would not only serve as a customer convenience, but would create store traffic and sales leads for dealers stocking these supplies.

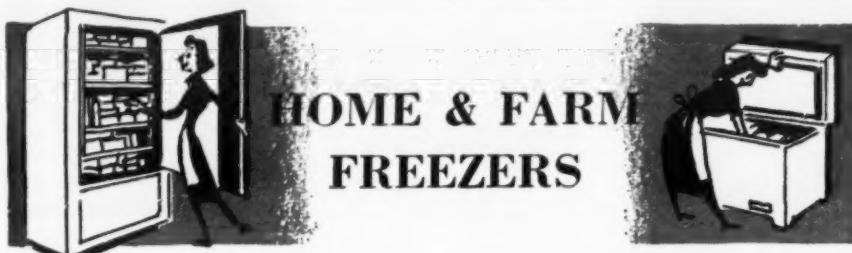
A metal self-service rack for use in displaying the materials is being provided with the assortment at no extra cost to the dealer, according to the company.

Amana Appoints Two Texas Distributors

AMANA, Iowa — Appointment of two new distributors for Amana food freezers in Texas was announced recently by E. L. Hinchliff, sales manager of Amana Refrigeration, Inc.

Harris Distributors, Abilene, has been appointed to cover the Abilene territory. Principals of the company are Gene S. Harris and Dan Jones Castles. James L. Massey is sales manager.

Dacco Supply Co., Inc., Dallas, has been named to cover the Dallas territory. Officers of the company are: Marvin L. Brown, president; S. Y. Guthrie, vice president; F. C. Bray, secretary-treasurer; H. W. Gillis, manager; and W. R. Eoff, service manager.



READY to take the road, the new Jordan mobile showroom gets a final inspection by Philip Benn, assistant sales manager of the Jordan domestic line of upright home freezers, who is in charge of the trailer unit which is scheduled to travel through 20 states, bringing the Jordan upright freezer display to current and new distributors across the nation. The trailer is outfitted with the "Lady Jordan" (Model J-22) and the "Hostess" (Model J-16) upright home freezers as well as the Model CF-30 and a display of the component parts which go into the Jordan Gold Tone line of upright home freezers.



HARRY FOGEL, left) executive vice president of the Jordan Refrigerator Co., inspects the "Lady Jordan" (Model J-22) Gold Tone upright home freezer built into the new Jordan mobile trailer showroom before it takes to the road. Shown left is a portion of the special display of all the component parts.

Jordon Mobile Showroom Will Take Upright Freezers to Prospective Distributors

PHILADELPHIA—Jordan Refrigerator Co. has built and outfitted a new mobile showroom in a trailer for its upright home freezers, according to Harry Fogel, executive vice president.

The showroom, which will carry the "Lady Jordan" (model J-22), the "Hostess" (model J-16), and the model CF-30, in addition to a special display of all the component parts which go into the manufacture of the Jordan "Gold Tone" line of upright home freezers, will travel through 20 states during its initial trip. The first trip will take four months.

Philip Benn, assistant sales manager of the domestic line, will be in charge of the new "mobile" showroom.

The trailer, which is the first of a dozen similar mobile showrooms eventually to be put into the field by the company, will have as its primary purpose showings of the Jordan upright freezer to current

and new distributors around the country, Fogel said.

"We are currently signing up new distributors throughout the nation," he said. "With this trailer we can now roll our Gold Tone line up to their front doors and show them the models in complete detail."

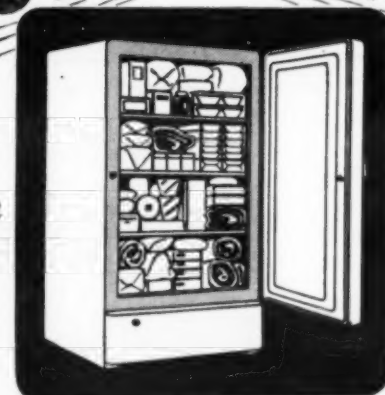
Within a year, he said, as additional mobile showrooms are added to the sales fleet, distributors will be able to borrow them for dealers' showings throughout their territories.

The trailer is 17 ft. long. Its door is painted to resemble the door of a Jordan upright home freezer down to the very last detail.

The words "Mr. Opportunity" are painted on both sides of the automobile pulling the trailer. The brand name is in bold letters on all sides of the mobile showroom. On the side which will face the center of the highway is the slogan: "Jordan Glamour Freezer of the Year," with special advantages illustrated.



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you'll buy
VICTOR
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- Model VUQ-18-A (No Inner Doors)
- 19 cu. ft. Upright (Also available with inner doors)
- The ultimate in Freezer compactness
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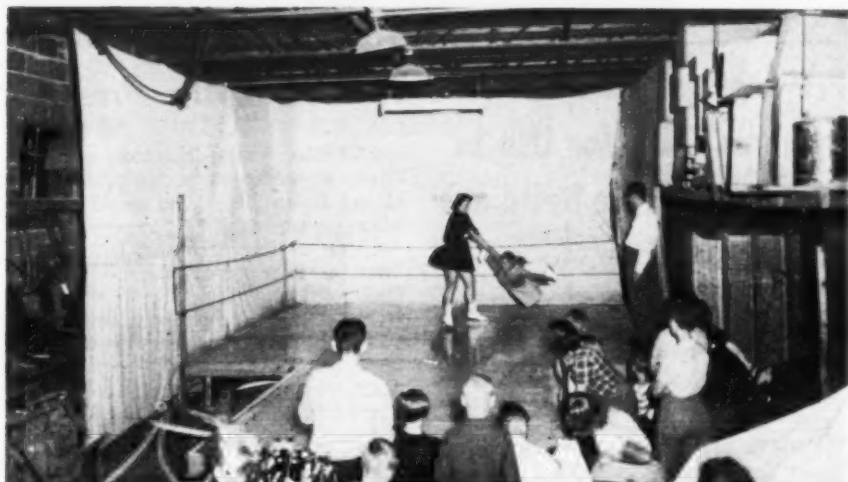
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Victor line that mean More Sales

... More Profitable Sales for You



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MANUFACTURERS OF THE FAMOUS VICTOR QUICKFREEZERS



"SEE what the boys in the back room are having." In this instance "the boys" (and girls) are having fun skating on the unique portable rink which Contractor "Chuck" Beltz (at right) had set up in his shop one Sunday afternoon.

Ice Skating Knows No Season

Contractor Sets Up Portable Rink In Back of Shop Just for Fun; Designs New-Type Units

DETROIT—The cobbler's children may go without shoes, but the offspring and friends of a contractor here who makes ice rinks always keep their skates handy because. . .

"Just for the heck of it" on a recent Sunday in September "Chuck" Beltz set up a newly designed portable "Beltemp" rink in the back room of his shop and invited friends over for an afternoon of skating—complete with music, pop, and chips.

Beltz, who heads up Beltz Engineering Laboratories (a manufacturing operation) and the Charles R. Beltz Co. (distributor and contractor) has long been interested in artificial ice rinks in addition to other applications of refrigeration and air conditioning. Among his previous installations was the permanent rink for the Detroit Skating Club (described in the March 6, 1950, NEWS) and more recently the portable outdoor rink on a public tennis court in Detroit (June 8, 1953, NEWS).

The latest is a light-weight portable affair with unique design features which was produced for exhibit

purposes. It was used first for a small "ice show" in Wisconsin and is now scheduled to be seen in many parts of the country.

According to Beltz, this 20 by 30-ft. rink can be erected in only four hours, and in another 12 hours will have ice.

Because it's made in 7 by 10-ft. sections, "which fit together like a jig-saw puzzle," he explains, it is portable enough to take into any building. The sections can then be fitted in various arrangements.

The piping is unique. A "sandwich" type layout of aircraft structural tubing in both square and round shapes with plastic pipe for headers provides the heat exchange between the water to be frozen and circulating Prestone which serves as "brine."

(When the rink moves, the Prestone is pumped back into barrels and used again at the next location.)

To help achieve light weight by such means as aircraft tubing and box-beam construction, Beltz drew heavily on his earlier experiences in aviation research.

Chilling of the brine is done by two 10-hp. chiller assemblies, each of which consists of two 5-hp. units.

"Normally all four units operate only during the initial freezing period. After it's frozen, the ice can be maintained with just two 5-hp. units running," Beltz said. "It's designed to operate in room temperatures as high as 110° F."

"This offers another advantage. If one unit should go down when the rink is out in the field, we can just forget about it and operate on the other units. The repairs can be made at a later time when the rink comes back into our shop."

In preparing for that Sunday Afternoon of skating, Beltz ran into only one difficulty. Needing a new pair of figure skates, he visited one of the city's largest department stores.

After explaining his needs, Beltz received a surprised stare from the skate-less salesman.

"Aren't you rushing the season?"

McCray Selects Little as Shelving Sales Manager

KENDALLVILLE, Ind. — J. W. Bostwick, vice president in charge of sales for McCray Refrigerator Co., Inc., has announced the appointment of J. E. Little as manager of sales for Birkenwald shelving.

McCray took over the sales of Birkenwald "Space Saver" sectional shelving in all states east of the Rocky Mountains January 30, this year. The subsequent increase in the volume of shelving business has made it necessary to establish a department to work with distributors on sales, service, and shipments of shelving, Bostwick said.

Little has been associated with McCray for eight years and will take over this new assignment at once with headquarters at the plant in Kendallville. He will also continue as district manager in charge of Canadian sales of McCray equipment.

6 Appointed by Bowser Technical Refrigeration

TERRYVILLE, Conn. — Appointments of Thomas Hinchliff as production manager and Frank Radjeski as plant manager have been announced by Bowser Technical Refrigeration, manufacturer of environmental test equipment.

In other executive personnel changes, Norman Miller was named plant engineer, Alan Hershey head of the special projects engineering division, Herman Rudman executive sales engineer, and Ray Biggers head of field operation.

Commercial Refrigeration

Central Selling Spot Catches Frozen Food Sales for Market

ELMIRA, N. Y. — Frozen foods are given one of the top traffic spots in the newly-opened Grand Union supermarket at 1371 College Ave. here.

A large self-service frozen food case is located in the exact center of the selling floor where it catches the brunt of general store traffic and can quickly be reached from any other part of the market.

In addition to the large frozen food case, a self-service case also is devoted to ice cream. At the rear of the store, next to the self-service meat department, is a special case devoted to frozen meat and fish.

Barbee, McCray District Sales Manager, Retires

KENDALLVILLE, Ind. — E. E. "Bob" Barbee, who has been sales manager for the sixth district of McCray Refrigerator Co., Inc. since 1948, has retired from the company, it was announced recently. District headquarters are in St. Louis.

Clair L. Miller, who came to McCray from R. H. Bishop Co., Champaign, Ill., has been appointed to take over Barbee's district, according to J. W. Bostwick, McCray's vice president in charge of sales. Miller has had many years of experience in the commercial refrigeration field.

Barbee started his long and successful career with McCray as a distributor in Cedar Rapids, Iowa. On May 1, 1934, he was appointed manager of the St. Louis branch. He was made sales manager for the sixth district on March 1, 1948, and served in that capacity until his recent retirement.

Service Firm Files Name

BUFFALO—A business name has been filed in the Erie County clerk's office for Cubs Refrigeration Service, 134 Etraleay St., Buffalo, by Arthur Kosieracki.

To make a "GOOD CONNECTION" Call RIVERSIDE!

This rubber-encased connector links a refrigerator relay with a Fusite hermetic terminal, which is welded to the compressor. Originally, the connector had a brittle plastic case which presented various problems. Our engineers suggested a molded rubber case, also redesigned the contacts. Resulting improvements: (1) Greater structural strength, (2) Elimination of damage in handling, (3) Faster assembly, (4) Better electrical contact, (5) Higher "pull-out" rating. And if you have problems involving the design or production of similar or more intricate assemblies, you too, can "make a good connection!" Just write or call us, without obligation, for engineering recommendations.

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WIRING HARNESSES AND ASSEMBLIES • CORD SETS • HEATER AND EXTENSION CORDS • SWITCHES • MOLDED RUBBER PRODUCTS

YOUR SALES ARE THE PAYOFF . . . WITH "PROFIT PROVEN" LA CROSSE EQUIPMENT.

SUPREME BOTTLE COOLER

Beauty, economy and efficiency make this low price, high quality cooler a leader. Exterior of blue baked enamel or stainless steel . . . stainless steel lids . . . 3" Fiberglass insulation.



STAINLESS STEEL DRAINBOARDS

The La Crosse reputation for consistent quality is maintained throughout the entire line of standard and custom built drainboards . . . in a wide variety of models and sizes.



.... BOOTH # 428

LA CROSSE COOLER COMPANY

Factory and Gen'l Offices: 2801-Losley Blvd. S., La Crosse, Wis.
Export Office: 80 Broad St., New York City. Cable Address: Exmport

Recently introduced, the new PENN single-pole refrigeration control is winning the enthusiastic acclaim of refrigeration men everywhere. And, one of the big reasons is SNAPFLEX contact action!

Only PENN has this exclusive contact structure which provides "roll-wipe-snap" action on closing and opening. Result? No bounce . . . no closing arc . . . no welding of contacts. What does this mean

to you? Longer life and better performance than any other single pole control available!

Learn more about this new Series 270 low-priced, single-pole control. Ask your wholesaler or write Penn Controls, Inc., Goshen, Indiana. Export Division: 13 E. 40th Street, New York 16, N. Y., U. S. A. In Canada: Penn Controls Limited, Toronto, Ontario.

PENN
AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, GAS APPLIANCES, POWER, RIV. COMPRESSORS, ENGINES

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
 "Now that you're all awake," Harry calmly resumed, "I'll get into the meat of the problem."

A New Frontier

The vast unexplored area of science opened up by advancing technology is a "new continent." It is fully as rich and as abundant as the geographical America of 150 years ago and "as full of promise for the future," according to Crawford H. Greenewalt, president of du Pont.

"The possibilities in increased productivity are enough to expand our standard of living substantially beyond its present high level," he predicts.

These possibilities "are of a scale and a diversity far beyond the comprehension" of anyone alive today.

Yet today, Mr. Greenewalt warns, "freedom has been mortgaged—bit by bit—on the plea of crisis or emergency. Rights of minorities in the economic area have been disregarded, to the point where the virtues of thrift, enterprise, and initiative have lost much of their original glamour."

"Our progress up to now has been in the direct ratio to the degree of human freedom afforded us. Our rate of progress in the near future will

be determined in identical fashion. I am quite confident that this essential truth will be recognized and affirmed by the American people.

"With freedom assured, there can be no limit to the progress we can make. The new continent we have before us has no boundaries. Its horizons are as broad and as limitless as the spirit and the imagination. For us it is the opportunity of multiplying our national inheritance many times. I am sure we can do so."

Nickie McWhirter, of Detroit's McGraw-Hill staff, went to the post office to return 183 obsolete penny postal cards. When she handed the clerk her pack of 183 cards, he said:

"I can't take them like that."

He gave her some string, and instructed Nickie to tie the cards in packages of 50, which she did.

"Then he cut the strings, counted the cards and wound up with a stack of 183, just the way he started," she reports.

Memo to Eisenhower: How about efficiency in our Postal Department?

Add Human Interest

Among James Shower's piano pupils in Detroit are Ed Waters, Frank Rivers, Sylvia Fish, Becky Beach, Mary Marsh, Esther Spring, and Milton Brooks.

The Ize Have It

Gloomily explaining the high cost of milk, an Australian dairy firm summarized:

"The department of agriculture is mobilized, the dairymen organized, the dairy subsidized, the milkmen

unionized, the price criticized, and the consumer more demoralized than is realized."

Incidental Information

More than 72 million Americans took vacation trips in the last year, and this does not include millions of week-end jaunts. In no other nation in the world is a tourist pleasure a \$7 billion industry.—*Holiday*.

The best bridge between despair and hope is a good night's sleep.—HARRY RUBY.

We do not stop playing because we are old; we grow old because we stop playing.—*Lion Magazine*.

"Modern life has become like a crowded highway along which we race, tense and tired, seeing nothing in the blurred landscape that flashes past as we rush along to our unknown destination. And yet all the beauties of the countryside, the valleys, mountains, lakes, and streams, the homesteads and villages where old friends and neighbors, and perhaps interesting strangers live, are still there to be enjoyed if we will slow down, leave the highway, stroll along the quiet lanes and pause to renew old friendships and make new ones among the genuine folk who dwell there."—BRIANT S. JACOBS.

Our top level gifted, those with IQ's above 137, represent 1% of the youth population. Those with IQ's between 120 and 137, the "moderately gifted," represent 10%.—*Parents' Magazine*.

UsAircro Reports . . .

Pre-Assembled Central Systems Gain for Use In New N.Y. Office Buildings

NEW YORK CITY — Factory-assembled central plant air conditioning equipment is gaining popularity for use in new office buildings in the Metropolitan New York area, according to United States Air Conditioning Corp.

The company reports that two of its RKW units, with a combined capacity of 45 tons, have been installed to provide heating and cooling for a two-story rental office structure in Freeport, N. Y.

The new stucco and brick building, erected by Emil Keen, one of Long Island's leading builders of private homes, contains a net rentable area of 14,843 sq. ft. on two floors.

The ground floor is occupied by All-State Insurance Co., the Freeport branch of the New York State Motor Vehicle Bureau, a branch office for the Brooklyn District of U. S. Internal Revenue Dept., and Henry W. Taylor, engineer. The entire second floor has been leased by the Nassau County Clearing House Association.

The air conditioning system utilized an RKW-20, serving the first floor, and an RKW-25, serving the second floor. The equipment contains, in a single casing, all of the elements of a central station system, including a shell-and-tube condenser, which is supplied by well water.

Steam coils in the equipment are supplied by a 1,080,000 B.t.u. gas-fired steam boiler for heating. All equipment is located in the building basement.

The system was designed and installed by the Mid-Island Utilities Co. of Westbury, Long Island. Karl Block was consulting engineer and Uman Construction Corp. was general contractor.

UsAircro recently reported the use of its RK equipment for Long Island City's first fully air conditioned rental office building, a nine-story and penthouse structure under construction at Queens Plaza. Ten units, each serving a separate floor, have a total cooling capacity of 285 tons.

Memphis Distributor Holds Home Conditioning Clinic

MEMPHIS — Stephens Brothers, Inc., distributor for Carrier Corp., sponsored a home air conditioning clinic recently at Hotel Peabody here.

William A. Lake of Carrier was the principal speaker.

Other speakers included William D. Jemison, Jr., president of Home Builders Association of Memphis; Wray Murray of the First National Bank; Robert Thomas Martin, president of the Memphis Div. of the American Institute of Architects; Major H. Allen, president of Memphis Light, Gas & Water Div.; and Sterling Roberts, state director of the Federal Housing Administration.

W.H. Olsen Named Aide To Olsen Mfg. President

ELYRIA, Ohio—Election of W. H. Olsen as assistant to the president of C. A. Olsen Mfg. Co. here was announced recently.

Olsen is also assistant to the president of Henry Furnace Co., Medina, Ohio.

The Olsen company manufactures the Luxaire line of heating and cooling equipment. Henry Furnace manufactures the Moncrief line of heating and cooling equipment.

Olsen attended the U. S. Naval Academy of Annapolis. During World War II he was a lieutenant in the U. S. Navy on the destroyer U. S. S. *Trathem*, engaged in active duty in the Pacific Theater.

After the war, Olsen was employed at the Olsen plant, spending time in various manufacturing and fabricating departments as well as the engineering and research and development laboratories. Later, he was sales representative and consultant for Luxaire and Moncrief equipment in Michigan and Indiana.

Gesco Unit Joins In Campaign To End 'Death Trap' Menace

WASHINGTON, D. C.—The service department of General Electric Supply Co. here is offering to remove latches from the doors of refrigerators not being used by their owners, according to Thomas A. Shallow, service manager.

He said local newspapers have been asked to publicize the offer, being made to help end the abandoned refrigerator menace. No charge will be made for the service.

Westinghouse A. C. Div. Names Erie Distributor

HYDE PARK, Mass.—H. W. North Co., Inc. of Erie, Pa., has been awarded a franchise as distributor for Westinghouse field-assembled air conditioning equipment, it was announced by W. B. Cott, sales manager of Westinghouse Electric Corp.'s Air Conditioning Div.

YEAR-ROUND Air Conditioning with One Central Unit

TYPHOON
MODEL S-W

ONLY
Heating-Cooling Unit
WITH
ONE-BUTTON CONTROL

TYPHOON AIR CONDITIONING CO., INC.
794 Union Street • Brooklyn 15, N. Y.
Specialists in air conditioning since 1909

Servel

invites you to the presentation of
its line of Hermetic Electric Refrigeration Units
at the All-Industry Exposition, Cleveland, Ohio,
November 9 to 12—Booth 200

See the hermetically sealed Servel Supermetics in both standard and capillary tube types. See performance demonstrations, too, of the special internal features of these latest and greatest Servel Supermetics.

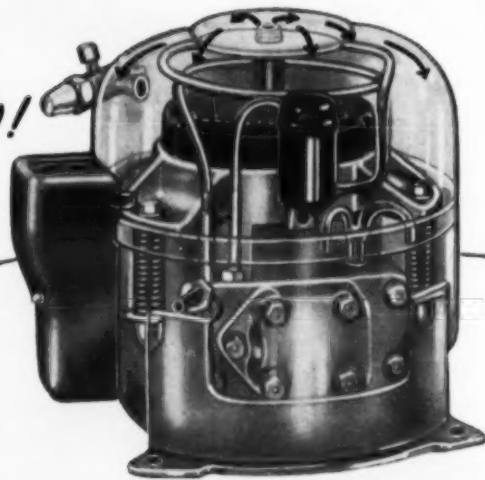
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during the Show . . .
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It's easy to see why
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operation at the All-
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AT THE
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REFRIGERATION & AIR CONDITIONING
EXPOSITION**
CLEVELAND AUDITORIUM • NOV. 9 TO 12



ANSUL
Chemical Company

Available in
8, 12, 20 and
30 cubic inch
capacity.

SEE PAGE 14

Fan Requirements

Blower Unit for Use Inside Casing of Warm Air Furnace, Air Conditioning Unit Must Have Integral Overload Protection To Limit Temperature to 150°C.

FORT WAYNE, Ind. — "Blower units intended for installation within the casing of warm air furnaces or air conditioning units, where they will handle air at room temperatures, are required to have motor overload protection provided as an integral part of the unit which will limit the temperature of the motor to 150° C. under stalled rotor conditions," states W. H. Farrell, associate electrical engineer of Underwriters' Laboratories, Inc.

Farrell discussed UL requirements for fans at the conference on application of motors to air-moving equipment held here under the sponsorship of the Fort Wayne section, American Institute of Electrical Engineers.

Overload protection for these blower units, Farrell explained, "may be provided by a current-responsive device mounted on the unit itself, but not necessarily on the motor, or devices integral with the motor responsive to motor current, temperature, or motor current and temperature.

Protective Device Checked In Conjunction with Motor

"The performance of any type of protective device is checked in conjunction with the motor it protects in each application to determine that it will limit the temperature of the motor to 150° C. under the stalled rotor conditions.

"In determining the types of equipment to be investigated by Underwriters', consideration is given to the potential hazard in the class of equipment and the benefits to be derived by the purchaser, manufacturer, or inspection authorities as a result of the investigation.

"It is the objective of Underwriters' to investigate equipment where a potential hazard is likely to exist and then to determine by suitable tests that adequate safeguards are provided," he said.

"Until 1935 the Laboratories did not accept submittals of electric fans for investigation. The majority of the fans manufactured prior to that time consisted of a motor and blade, with the motor located directly in the air stream. The cooling air passing over the motor tended to compensate for the heat developed in the windings. The fans were powered by motors of such capacity that they operated at temperatures well below the recognized limits for Class A insulation.

"With the addition of speed control devices usually located so that they were not directly in the air stream and a decrease in the size of motors

and ventilating openings, temperatures of insulating materials in motors, reactors, and wiring became of more importance, because of the effect on the insulation life of the fan, with the resultant fire and shock hazard.

"In January of 1934, at the request of the manufacturers of electric fans, Underwriters' formed an Industry Advisory Conference to assist in developing a set of safety requirements for electric fans. The first standard for electric fans covered desk, ceiling, and wall fans and excluded such types as ventilating and exhaust fans. The first edition of the Standard for Motor-Operated Fans was released to the manufacturers in January, 1935.

"The test procedure established for fans was similar to the tests conducted on other types of motor-operated appliances and consisted primarily of an input test to determine that the fan did not exceed the marked rating by more than 10%, a temperature test that materials used in the construction of the fan would not be adversely affected by temperatures attained under conditions of normal service, a dielectric strength test to determine insulation and spacing were adequate, and in some cases tests on switches to determine that they were capable of breaking the stalled rotor current of the motor without failure of the switch, due to burning of the contacts or arc-over to the enclosure.

"Electric fans have been investigated to determine that the enclosure was suitable as a housing of electrical parts, and to provide suitable protection against accidental contact with live parts or moving parts, such as pulleys, belting, gearing, and fan blades, etc. These requirements are still in effect for the conventional desk-type fan and are the basic tests for all types of fans listed by the Laboratories at the present time," Farrell said.

Potentially Dangerous Fan Motor

"An example of a fan which might become a hazard due to external conditions having a direct bearing on the safety of the complete assembly is a canopy or hood-type of fan," he explained.

"These fans are intended for installation directly over cooking equipment and are investigated with respect to the potential hazard from grease accumulation on any electrical component, or insulation provided in the unit. Wiring which is likely to be exposed to oil, grease, or oily

vapors is required to have insulation suitable for such use.

"The motor of such a fan must be enclosed or located to prevent the oily vapors from entering the motor enclosures. Filters, if provided, must be of a suitable type, and located on the air intake side of the motor, and must be readily removable for replacement and cleaning.

"Wall insert-type fans intended for use in exterior walls, and window ventilating-type fans are investigated for their suitability when exposed to high humidity and rain. Insulation resistance and dielectric strength measurements are obtained after the device is subjected to an atmosphere of 85% relative humidity at 30° C. for a 24-hour period with the fan not operating, and after being subjected to a water spray representing a driving rain directed at an angle of approximately 45° for four hours.

"The test for exposure to rain may be conducted either with the fan operating or not, depending on the condition most likely to permit moisture to enter the enclosure of the device. After being exposed to high humidity and driving rain, a fan must have an insulation resistance in excess of 50,000 ohms and withstand a 900-volt dielectric strength test.

"Attic-type ventilating fans have been considered to be of a type that are automatically or remotely con-



trolled and therefore are required to be provided with motor protective devices to limit the temperatures to 150° C. under stalled rotor conditions.

"The protective device must be either integral with the motor or attached to the motor or fan assembly. This protective device can also be of a current responsive type or a type responsive to motor temperature, or motor current and temperature.

"Heating-ventilating units consisting of motor-operated air circulators and including hot water or steam radiators intended for connection to existing steam or water lines may be either of the manual or automatic type. An automatic type is required to have motor protection similar to that provided on attic-type ventilating fans and blower units.

Non-Automatic Fan Does Not Present Same Fire Hazard

"A non-automatic or manual-type unit within sight of the operator at the time of starting is not considered to present the same potential fire hazard as does the automatic or remotely installed unit.

"Hot water or steam radiators provided as part of the unit are subjected to hydrostatic pressure tests to determine the suitability of the radiator

and associated piping for use on hot water and steam lines.

"In cases where overload protective devices are required for use in fans, the addition of the protective device might introduce new conditions in the fan which must be considered. These are casualty hazards, proper operation under short-circuit conditions, and arc-rupturing ability.

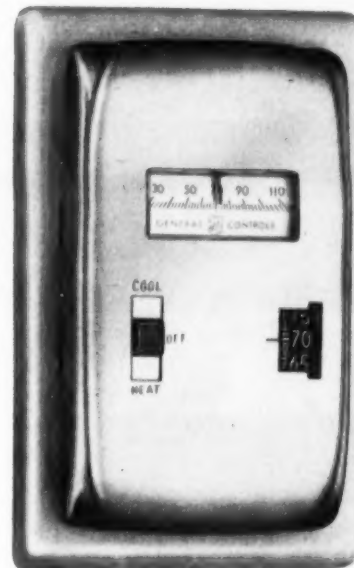
"The selection of a motor protective device in a fan motor must allow the fan to start and operate in the intended manner without tripping of the proper size branch circuit fuse or circuit breaker, or tripping of the overload protector. On a portable device the attachment plug cap defines the rating of the branch circuit. For a permanently installed device the branch size is determined in accordance with the rules of the National Electrical Code.

"A motor overload protective device must not ignite combustible material when subjected to a short circuit limited to 200 amp. for a motor rated ½ hp., or less, 250 volts or less (1,000 amp. for over ½ hp. or over 250 volts) when connected in series with the proper size branch circuit fuse. The contacts of the protective device must be suitable for interrupting the stalled rotor test current of the motor employed."

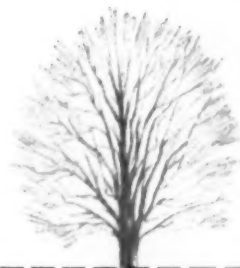
single point of control

for combination heating and cooling systems

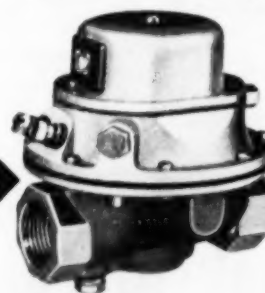
All year comfort is assured when General Controls' T-70H room thermostat is in charge of home heating and air conditioning. For cold weather comfort, set the easy-to-read temperature dial, move the indicator to "Heat" and that's all there is to it. Operating on millivolt current from a pilot generator the self-powered B-60 control system supplies healthful, dependable warmth all winter long. When hot weather comes, move the indicator to "Cool" and the air cooling system goes into operation on 24 volt current. For low cost, high satisfaction all year temperature control... it's automatic controls by General Controls.



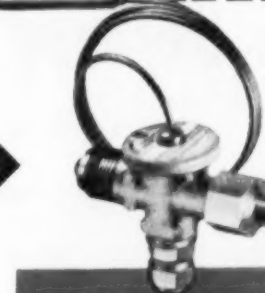
for winter comfort, hundreds of thousands of American homes rely on General Controls automatic heat controls such as the famous self-powered B-60 gas control valve.



for summer automatic controls such as this selective orifice V-200 valve control the flow of liquid refrigerants to air cooling and refrigeration systems.



A complete product line with One source of supply. One responsibility



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Manufacturers of Automatic Pressure, Temperature, Level and Flow Controls for Heating, Home Appliances, Refrigeration, Industrial and Aircraft Applications.

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Heating-Cooling

Room Thermostat



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weatherwise air conditioners

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Are you getting your share of profits from the Air Conditioning Boom?

Are you going to be the Residential Air Conditioning Specialist?

If you are, then investigate a tried and proven unit... the BARKOW "WEATHERWISE."

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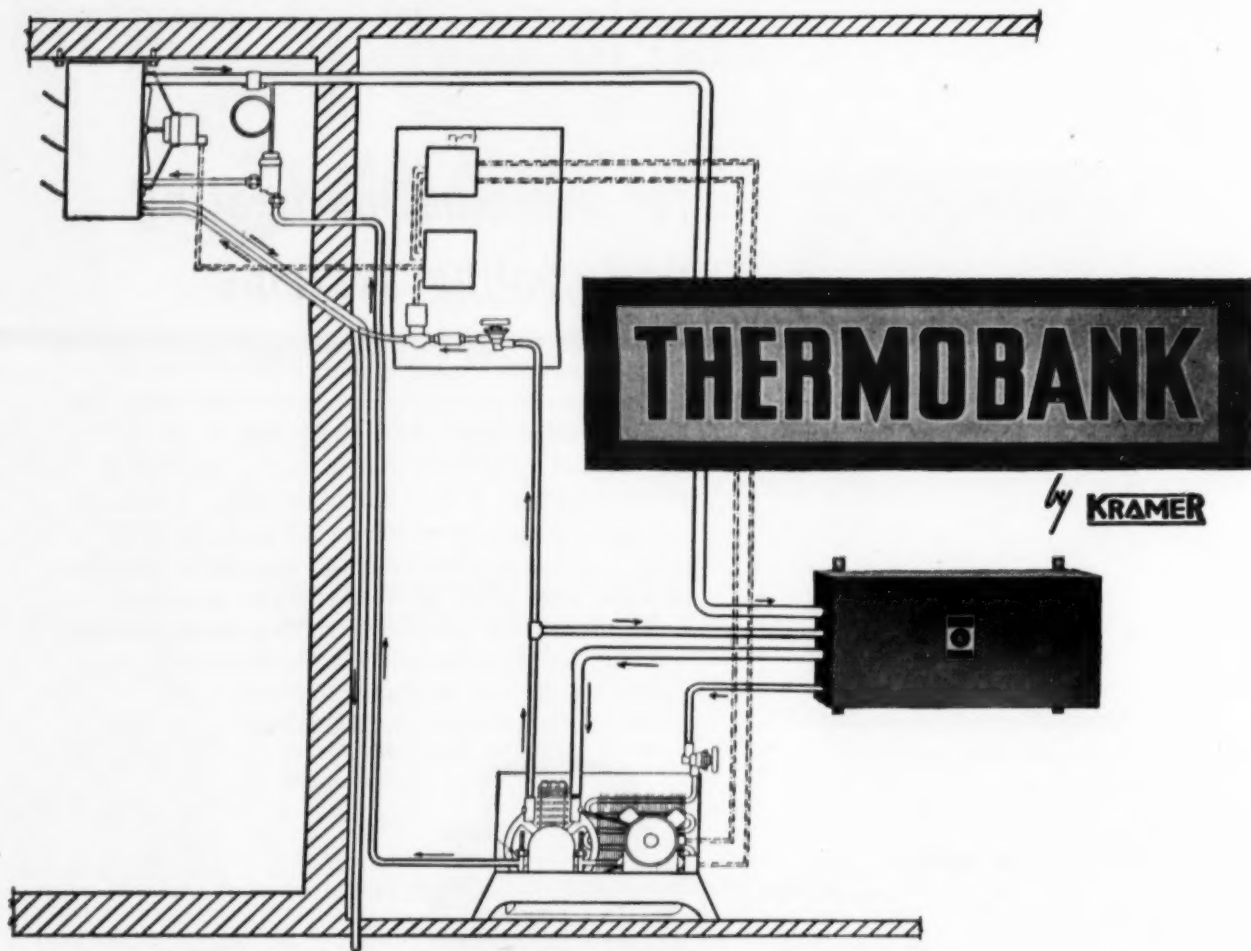
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Look at the record before you buy any defrost system

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WRITE FOR BULLETIN R-124

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"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

Keeping a Small Business Alive Is an Overtime Job

RUNNING A small business actually is more difficult than operating a big one, according to a study issued by the American Institute of Management.

Among other things, the smaller company has more trouble obtaining funds and maintaining credit. Furthermore, it is not as well equipped to control expenditures. Too often it has to pay the high dollar for people, supplies, and equipment.

Possibly even more important is this handicap: executives and rank-and-file workers are more difficult for the small employer to find and to keep. Competition from big companies for talent is difficult to match. "My husband works for General Motors" lends a social prestige that Whozis & Co. rarely can provide.

According to the AIM report, a great many small enterprises are kept from growing larger because they can't afford to adopt and adapt the methods of big business. Cited were technical research, competent cost accounting, depreciation practices and labor-saving equipment possibilities, plus tax-saving corporate devices. In the latter instance, it was noted, small corporations (1) often fail to utilize the experience and advice of "outside" directors, and (2) don't have high-powered legal advice.

Entitled, "The Improvement of Small Business Management," this American Institute of Management report declares that the mere fact of survival is evidence of exceptional business aptitude on the part of the managers.

"Because the small corporation is a more personal instrument," it continues, "there is a tendency for relationships within it to become blurred, because employees are overshadowed by the top men. Lines of authority are not clearly perceived; and employees, particularly new employees, tend to overburden the employers with questions and reports not lying specifically within direct management functions."

All this may be true. But we notice that plenty of small businessmen in our industry drive bigger cars, and seem to have more money to spend on hunting trips and good times than executives of big corporations. They may have more worries, but they are compensated for them, it would appear.

Nevertheless, let's doff the hat to those competent and courageous small businessmen who are doing well. Nowadays the cards are stacked against them, nearly everyone admits. They earn every penny they make—for themselves, their backers, their customers, their employees, and the public-at-large.

Significant Quotes

"The word 'merchandising' has been the great misnomer of American industry. It is one of the most widely used words in our economic life. Still, dictionaries slide weakly by it. Encyclopedias do it small justice; and businessmen use it with unconscionable abandon to mean almost anything in the field of marketing, even marketing itself. . . . Merchandising is the least cataloged phase of marketing science. It has been played largely by ear. . . ." **HERBERT "BUD" WILSON**, President, Twing Sales Corp.

"One does not buy loyalty. One earns it, as one does respect."—**JOHN M. SOMERS**.



Refrigeration Service In New Los Angeles Quarters

LOS ANGELES — Refrigeration Service, Inc., refrigeration parts and equipment wholesaler, has moved to new quarters at 611 N. Virgil Ave., just north of the Hollywood Freeway.

The company had been in its old location, 3109 Beverly Blvd., for the past 23 years. Expiration of the firm's lease and sale of the building made the move necessary, it was explained. Prior to moving, the company held a five-day clearance sale.

N. O. Nelson Co. Opens Mt. Vernon, Ill. Branch

ST. LOUIS — N. O. Nelson Co. has announced the opening of a branch at 816 South 17th St., Mt. Vernon, Ill.

Refrigeration, plumbing, heating, and industrial wholesale supplies and equipment are carried at this branch.

William Lance is in charge of the refrigeration counter, and Matt Guttman is branch manager.

Switch Posts



T. E. Goodyear

Ralph Julin

Wolverine Shifts Julin, Goodyear In Midwest

CHICAGO — E. J. Campbell, midwestern district sales manager for Wolverine Tube Div. of Calumet & Hecla, Inc., announced two changes in that district recently.

Ralph Julin, who formerly represented the company from its Des Moines, Iowa office, is moving to the midwestern district sales office here.

Julin's duties will be assumed by Thomas E. Goodyear, formerly an office sales representative in the company's general sales office in Detroit. Goodyear will retain Julin's office in the Savings and Loan Building.

Delavan Names Thurston Factory Sales Engineer

WEST DES MOINES, Iowa — Delavan Mfg. Co. here has announced the appointment of William J. Thurston, Rego Park, Long Island, New York, as factory sales engineer.

Thurston will represent Delavan in New York state, New Jersey, eastern Pennsylvania, Maryland, and Delaware.

For six years, he was associated with Thurston, Inc., a sales engineering organization of New York City.

Thurston will work with manufacturers and supply houses, promoting the sale of Delavan compressor parts for commercial refrigeration, oil burner nozzles and accessories, and agricultural nozzles and accessories.

Maurey Mfg. Promotes J. E. Maurey, R. B. Mallory

CHICAGO — Promotion of Joseph E. Maurey to vice president and general manager of Maurey Mfg. Corp. has been announced by Eugene E. Maurey, Sr., president and chairman of the board.

At the same time, it was announced that Russell B. Mallory, formerly district sales manager covering Indiana, Illinois, and part of Michigan, has been appointed national sales and export manager.

Maurey manufactures a complete line of fractional horsepower sheaves and belts, as well as components for larger V-belt drives. A comparatively new product is the company's flexible coupling in which a synthetic oil-resistant rubber compound is bonded to the two faces of the coupling.

Refrigeration Equipment Wholesalers August Sales Up 10% Over '52

Sales Slip 26% from July Of 1953, Says Commerce Dept.

WASHINGTON, D. C. — Inventories of appliances and specialties wholesalers during August were 46% larger than last year — on the average throughout the country, the U. S. Bureau of Census reported recently.

Sales, on the average, were up 6% from last year and down 5% from July. For the first eight months of the year, they were 12% higher than last year.

Wholesalers of commercial refrigeration equipment and parts registered a sales gain of 10% over August, 1952, but saw sales slip 26% below July. For the first eight months of 1953, their sales were 18% higher than in the same portion of 1952.

Inventories were 7% larger than last year and 1% under July.

While inventories were consistently higher than last year, there were vast differences between different sections of the country. Gains ranged from 12% in the south central states to 86% in the south Atlantic states.

Inventories of wholesalers in the Pacific states were 14% higher than last year. In the mountain states, they were up 33%, in the north central states up 42%, in the middle Atlantic states up 53%, and in the New England states up 60%.

Sales, as compared with last year, also showed wide regional variances. They were up from 7 to 39% in the northeast and north central sections

Kind of Business and Geographic Division	Per Cent Change		No. of Firms Reporting	Aug. 1953 Panel
	Aug. 1953 from July 1953	Aug. 1952 from July 1952		
Appliances and specialties wholesalers	+6	-5	117	21,974
New England	+7	-13	14	1,923
Middle Atlantic	+8	-13	21	7,752
East North Central	+24	+30	18	3,250
West North Central	+39	+30	14	1,708
South Atlantic	-12	-19	7	2,810
South Central	-5	-16	3	1,650
Mountain	+9	+1	7	1,037
Pacific	-4	+8	11	1,844
Refrigeration equipment, parts (com'l)	+10	-26	66	2,092
Middle Atlantic	+16	-24	14	678
East North Central	+10	-27	8	308
West North Central	+39	-4	6	223
South Atlantic	+13	-21	23	663

Inventory, End-of-Month (At Cost)

Kind of Business and Geographic Division	Per Cent Change		No. of Firms Reporting	Aug. 1953 Panel
	Aug. 1953 from July 1953	Aug. 1952 from July 1952		
Appliances and specialties wholesalers	+46	+2	97	30,713
New England	+60	+2	11	2,107
Middle Atlantic	+53	+8	16	8,925
East North Central	+42	+12	13	4,350
West North Central	+42	+14	12	3,158
South Atlantic	-86	-4	21	5,721
South Central	+13	-9	9	2,369
Mountain	+33	-8	7	1,864
Pacific	+14	-16	8	2,219
Refrigeration equipment, parts (com'l)	+7	-1	56	3,903
Middle Atlantic	+5	-9	11	962
East North Central	+12	+3	13	656
West North Central	-12	-7	6	434
South Atlantic	+17	+5	23	1,564

of the country and down from 4 to 12% in the south and western sections of the nation. August sales were better than July only in the north central area (up 30%) and the mountain states (up 1%).

LARKIN

means low prices!

LARKIN CEILING HUMI-TEMP

Price is only one factor in the selection of any product—especially one that has so important a task as protecting valuable perishables. Performance must come first. Quality cannot be overlooked. Durability is highly important. Larkin has all of these. And Larkin has low prices, too. Compare them and see for yourself how low they are.

For the latest Larkin price list, see your wholesaler. If you wish, write direct to us. We shall be glad to send you one.

Manufacturers of the original Cross-Fin Coil
• Humi-Temp Units • Frost-O-Trol Hot Gas Defroster • Evaporative Condensers • Cooling Towers • Air Conditioning Units and Coils
• Direct Expansion Water Coolers • Heat Exchangers • Diffuser Pans.

WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS, INC.

519 MEMORIAL DR., S.E. • ATLANTA, GA.



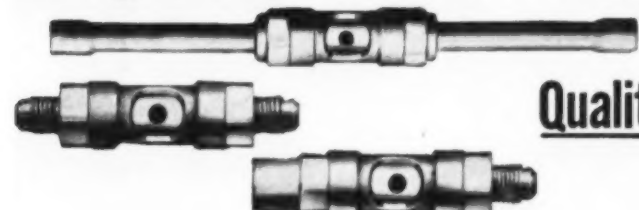
Genuine Joe says:
"WAGNER
Commutators are the
'Real McCoy'"

Wagner Commutators are best because they are precision built of the most carefully selected materials. Their rugged design provides extra strength and permits refacing with safety.



Wagner Electric Corporation
8471 PLYMOUTH AVENUE, SAINT LOUIS 14, MO., U. S. A.

LIQUID EYE... The Quality Indicator



for your
Quality Product
Planning

- In all sizes and connections to meet your every production problem. Any combination — flare to copper — male to female or male to male flare.
- Liquid Eye reduces service costs through instant analysis of refrigerant charge.
- Field tested over many years — less than 1 in 2,000 units ever returned for any reason.

✓ Original equipment manufacturers have complete confidence in Liquid Eye. Consult with us now about your particular problem!

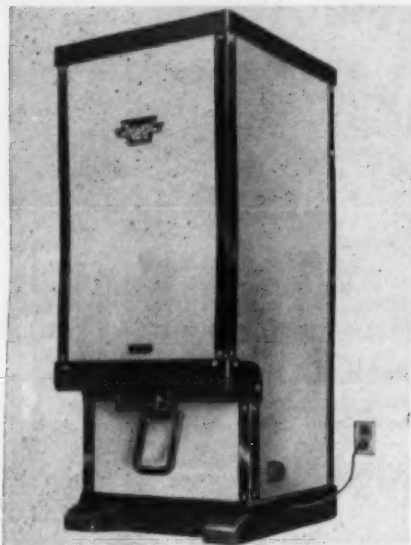


Allin MANUFACTURING COMPANY
1153 West Grand Ave., Chicago 12, Ill.



What's New

When requesting further information on new products, please use "Information Center" form.



**Crushed Ice Machine
Made for Counter Use**

—KEY NO. C-1040—

NEW YORK CITY — A new "Krusht-Ice" ice crushing machine for counter use has been announced by Ice Appliances, Inc. here.

Providing uniformly sized crushed ice for use in soft drinks, iced tea or coffee, fruit cups, salads, sea foods, etc., it has a heavily insulated stain-

less steel hopper with approximately 30-lbs. capacity.

The unit stands 29 in. high and occupies only 11 by 13 in. of counter space. Net weight is 67 lbs., while shipping weight is about 75 lbs. Cutter is one-piece stainless steel while casing has moisture resistant, removable panels.

Motor is a self-lubricating 1/4-hp. unit operating on 110-115 volts, 60 cycles, a.c. The 10-ft. rubber covered cord is approved by Underwriters Laboratories.

Basic Air Conditioning Unit Offered by Curtis

—KEY NO. C-1041—

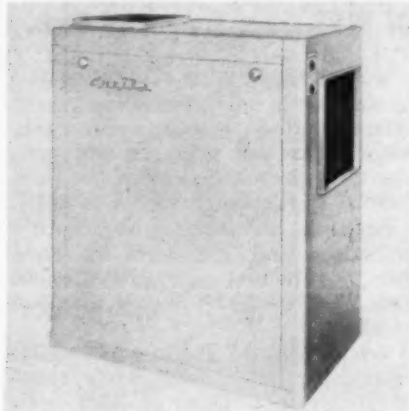
ST. LOUIS — A single, basic air conditioning unit which may be used for a wide range of home and commercial installations is being put on the market by the Refrigeration Div. of Curtis Mfg. Co.

The new Curtis basic cooling unit can be used for all types of remote, duct-type cooling. It is easily attached to any modern home heating plant, or it can be fitted with steam or hot water coils for all year air conditioning.

When a combination air conditioner and furnace is required, a specially designed AGA-approved Curtis gas

heating unit fits on top of the basic unit.

For commercial or business installations where package-type, free-throw cooling is desired, a special



plenum is available to set onto the basic unit. Here, too, steam or hot water coils may be installed for year-round heating and cooling.

The compact size of the unit, requiring only 7 sq. ft. of floor space, makes it suitable for closet, utility room or basement installations. For complete details, write for Bulletin RSIOE-17.

National Offers Low-Level Frozen Foods Table



—KEY NO. C-1042—

ROYAL OAK, Mich. — A new, low-level freezer table for merchandising frozen foods has been announced by National Market Equipment Co. here.

Measuring 4 ft. by 6 ft., the new unit stands only 35 in. high, and provides approximately 24 sq. ft. of low level display area, with reach-in accessibility from any side.

According to the manufacturer, the new National introduces many of the advantages of the dump-type display, into frozen foods merchandising. Selective tests in a number of Midwest markets have indicated that it substantially increases frozen food sales over older methods. Increases of up to 157% over previous records have been reported, the company said.

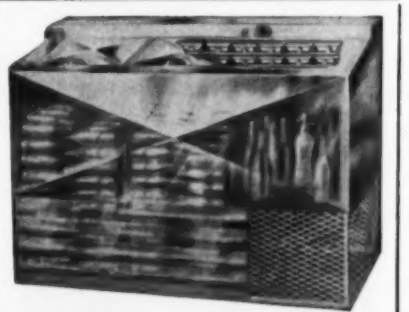
Equipment includes a specially designed fluorescent-lighted superstructure capable of flashing illuminated messages across the entire market area. Copy panels are changeable, and can be tied-in with any phase of the market's promotional program.

Penn Producing New Cooling Tower Control

—KEY NO. C-1043—

GOSHEN, Ind. — A new cooling tower control for mechanical cooling systems is now being produced by Penn Controls, Inc. here.

Designated as the Type 277BT10,



**FLO-COLD Stainless Steel
DRINKMASTER
ICE CUBER-COOLER**

Now Also Made in
ALUMINUM

See It At The Show.

United Friguator Engrs.
Menominee, Mich.



the control is designed for commercial refrigeration and air conditioning service to control evaporative condensers and cooling towers. Temperature range of the control is 50° F. to 90° F., with a minimum differential of 4°.

When wired in series with the cooling tower fan motor or motor controller the control assures proper operation by stopping the fan when the water temperature falls below the control setting, the company said. It may also be used to control the circulating pump where no fan is used.

Complete information on the new control's specifications and applications is listed in Penn's 1954 condensed catalog on refrigeration and air conditioning controls, just released.

Heater Has Aluminized Steel Heat Exchangers

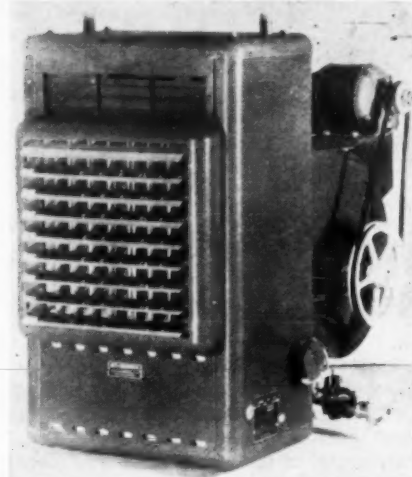
—KEY NO. C-1044—

OMAHA, Neb. — A new improved Hastings gas unit heater has been announced by the Hastings Air Conditioning Co. Sales Div., Hastings Air Control, Inc.

This new blower type model features aluminized steel heat exchangers and has the exclusive Hastings dual-directional air distribution louvers.

Other features include electrically welded tubes and combustion chamber, stainless steel ribbon burners,

cushion mounted blower motor with thermal overload protection, standard Minneapolis-Honeywell Controls, and a draft hood, built into the heater,



to protect against chimney backdraft or excessive suction.

This heater is designed for quiet operation and maximum air delivery at high static pressure, and it can be used with natural, manufactured, and LP gases.

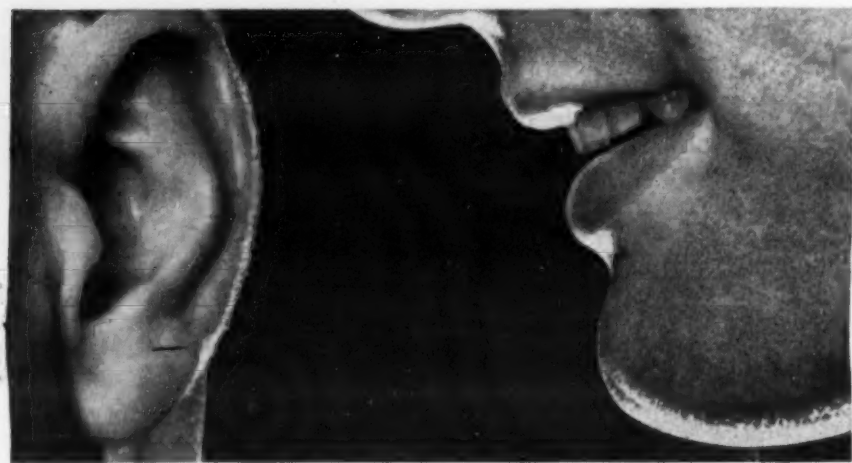
Models are available from 75,000 to 200,000 B.t.u. input capacity.



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WATER COOLER
- ICE MAKER
SALES ...
"Taste-Master"
PURIFIER**

Stop service calls . . . keep out rust and sludge . . . open new doors to sales acceptance!—with coolers, ice-makers, sell "Taste-Master"!—checks chlorine, traps sediment; promotes service-free satisfaction with all water processing appliances. Write—

Filtrine MANUFACTURING CO.
BROOKLYN 38 • N. Y.
"Water Coolers and Filters for 40 Years"



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new name in
basic refrigerants is
genetron®

Produced by

GENERAL CHEMICAL

—industry's important new source of the
two big "work horse" refrigerants:

- Dichlorodifluoromethane
("Genetron" 12)
- Trichloromonofluoromethane
("Genetron" 11)



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SEND NOW FOR FREE NEW DESCRIPTIVE BOOKLET!

GENERAL CHEMICAL DIVISION, Allied Chemical & Dye Corporation
40 Rector Street, New York 6, New York

I'd like to know more about "Genetron" Refrigerants. Please send free copy of your Technical Service Bulletin 11-12A to:

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Information Center

For more information on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

What's New or Current Literature Available

Key No. Key No.
Key No. Key No.
Key No. Key No.
Key No. Key No.

Products Advertised
(list name, page, and issue date)

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Company
Street
City Zone State
Type of Business

MAIL THIS FORM TO

AIR CONDITIONING & REFRIGERATION NEWS
Reader Service Dept.
450 W. FORT ST. DETROIT 26, MICHIGAN

What's New (Cont.)

Rotisserie-Broiler Grill Has Pushbutton Control



KEY NO. C-1045

WOODSIDE, N. Y.—A new push-button rotisserie-broiler grill and baker combination that cooks eight ways has been announced by Marlun Mfg. Co., Inc. here.

Called the "Black Angus" with the "Magic Touch," the unit features a pushbutton arrangement where pushing one button turns the unit on and pushing others sets it at high, medium, or low heat.

It also features an automatic timer that can be set for cooking times up to two hours. When the timer is set and the unit started, a light goes on. When the time cycle is completed, a bell rings, the light goes out, and the electricity is automatically shut off.

The manufacturer claims that now for the first time, the housewife can use the rotisserie combination as a

baker. To bake, she places the baking pan with its contents on the grill plate and lowers the top.

Grilling and frying can be done on the grill plate itself without switching trays or using pots and pans. "Black Angus" is claimed to have the only built-in aluminum top grill plate providing faster transfer of heat. The grill plate is also claimed to be the only one that is detachable for cleaning. It is guaranteed not to buckle.

Marlun says it has an exclusive heating element which creates a terrific intensity of heat. Heat is confined to an area known as the heat pocket, in which heat is evenly distributed and compressed.

Other features include a side handle that stays cool, a tempered glass spatter door that may be placed in front of the rotisserie, a "Bar-b-skewer" on the motorized spit shaft, nichrome heating unit for infrared cooking, heavy gauge metal and triple plated double wall insulation, and chrome plated steel finish.

The four-pole, air cooled spit motor uses a.c. only and is guaranteed for one year. The unit bears the Underwriters Laboratories seal of approval.

Over-all dimensions are 19½ by 12¼ by 12 in. Shipping weight is 27 lbs. Suggested list price is \$79.95.

The eight means of cooking credited to the Black Angus are barbecuing, broiling, roasting, grilling, baking, frying, boiling, and toasting.



Therm-O-Tray Keeps Food Warm Indefinitely

KEY NO. C-1047

BERGENFIELD, N. J.—A radiant heat platter called "Therm-O-tray," designed to serve an entire meal and keep it hot for hours if necessary, has been introduced by Electriglas Corp. here.

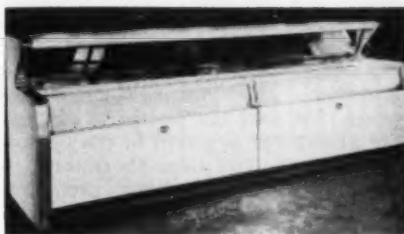
With the Therm-O-tray, food can be kept hot indefinitely because radiant heat does not dry out food the way ordinary heat does, the manufacturer says.

The tray is made of specially tempered glass that is virtually unbreakable. The glass has a metallic oxide fused into it which acts as the resistance or heating element and the glass sends forth infrared rays. The platter reaches a maximum temperature of about 170° F. and is never too hot to touch, according to the manufacturer.

Operating on either alternating or direct current, the Therm-O-tray is available in round or rectangular shapes. The round shape is 17 in. in diameter and weighs 6 lbs. The rectangular trays are available in two sizes.

One is 10¼ by 16¼ in. and weighs 4 lbs. and the other is 12¼ by 20¼ in. and weighs 6¼ lbs.

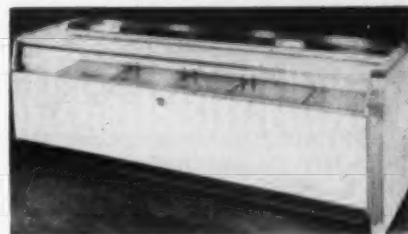
Federal Refrigerator Adds New Display Cases to Line



KEY NO. C-1048

WAUKESHA, Wis.—Federal Refrigerator Mfg. Co. here announced that it has recently added new models to its 1954 line.

Included are full-vision, self-serve produce, meat, and frozen food cases in top-display and double-duty models. Models are in the popular 7 and 11-ft. lengths. Mirrored, lighted superstructures are designed so that meat and frozen food cases can be lined up.



The company said that with new assembly facilities at Belleville, Wis., it is offering the most complete line in its history. The line includes freezers, reach-ins, displays, merchandisers, in addition to storage freezers.

Federal reported that it has a complete line of bakery displays and freezers. It added that a new self-serve unit for frozen baked goods is finished in wood grain on steel.

Literature is available on request.

Promotion Model Range Introduced by RCA Estate

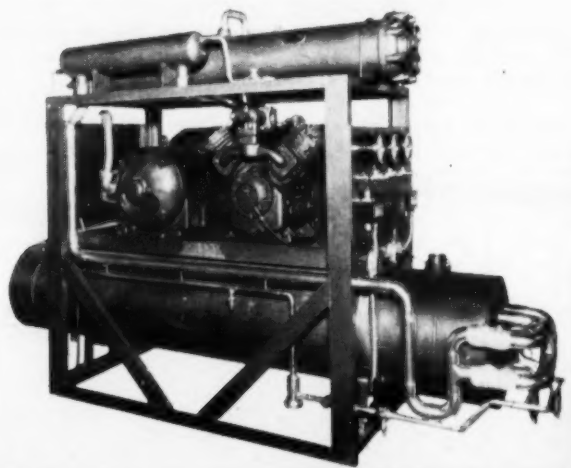
KEY NO. C-1049

HAMILTON, Ohio—A new promotional model electric range, timed to take advantage of the Thanksgiving-Christmas holiday interest in ranges, has been introduced by the RCA Estate Appliance Corp., a subsidiary of Radio Corp. of America.

Called the model 5314, the range has automatic clock control of the oven and appliance outlet, chrome top lamp, self-winding minute minder, oven light and window, "Electri-Cooker" with up-down unit.

During the holiday season promotion, the range will be specially priced at \$229.95, \$50 less than the regular list price, the company said.

Schnacke Manufacturers New Line of Water Chillers



KEY NO. C-1046

EVANSVILLE, Ind.—A new line of package water chillers from 5 to 60 hp. is now being manufactured by Schnacke, Inc. here.

These units include compressor, chiller, water cooled condenser, all controls, starter, piping, etc.—completely assembled and ready to start with the connection of power, condenser water, and chilled water lines.

Schnacke said the units eliminate "a great deal of the expensive field labor cost" and also "many of the hazards encountered with inexperienced and careless field labor, wrong piping installation, dirt, moisture, foreign matter in the system, etc."

Schnacke expects a growing demand for this type of unit and is increasing production facilities in order to assure prompt delivery.

R. E. M. A.

Booths

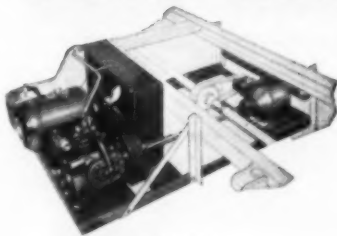
120-122-124

The RIGHT COMBINATION

opens the door to truck refrigeration profits too!

Just as it takes the right combination to open a safe, it also takes the right combination of equipment to get the top dividends from truck refrigeration. That's why Kold-Hold gives you your choice of several different truck refrigeration combinations to provide a method of refrigeration that is just right for each special problem. These Kold-Hold systems will maintain predetermined low temperatures in your trucks with any degree of automatic operation desired. They can be fully automatic and thermostatically controlled or they can be semi-automatic requiring overnight hook-up to an electric outlet or a cooling system. One of these systems, properly engineered to your needs, can pay for itself in longer trips, reduced handling, increased customer satisfaction and elimination of spoilage losses.

KOLD-HOLD can answer any refrigeration problem!



KOLD-TRUX

Which do you prefer . . . Mobile or Hold-Over truck refrigeration? Kold-Hold can give you either or a combination of both.

When your weather worries start, pick out the routes with the biggest refrigeration problems and call on Kold-Hold to give you a satisfactory solution. They will give you the right combination for your needs from such highsides as the Kold-Trux Mobile Unit, a mounted compressor, or make-and-break assemblies, coupled to such lowsides as Kold-Hold Hold-Over Plates, Thin Plates, Serpentine Quick-Action Plates, or Blowers.

Why not give us the details of your problems and let our engineers find the most efficient solution for you. Write today for details.



HOLD-OVER PLATES

Tell us your truck refrigeration problems and send now for complete data and literature.

KOLD-HOLD

CRUSHED ICE SNOW ICE.....

At the Counter!

With these 2 NEW wonder machines

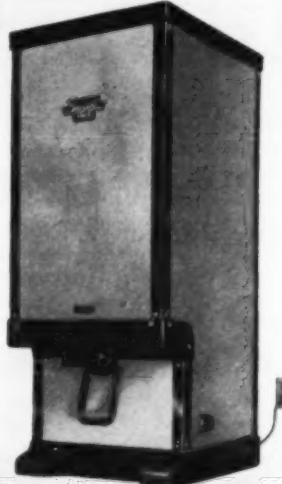
(Each occupies only 11" x 13" counter space.
Each gives the desired quantity as wanted)

KRUSHT-ICE Ice Crusher

A flick of the finger and it produces sanitary, uniformly-sized crushed ice for soft drinks, iced tea, iced coffee, fruit cups, salads, sea foods, etc.

SNOW-ICE Ice Shaver

In a flash, this automatic ice-shaving machine supplies sanitary snow ice for SNOW BALLS and SNOW CONES. Also fine for bar use.



KRUSHT-ICE MACHINE ILLUSTRATED

BOOTH 326

38th National Hotel Exposition
November 9th thru 13th
Kingsbridge Army, N. Y. C.

ICE APPLIANCES, Inc.
1775 Broadway, N. Y. 19, N. Y.
Distributor and Dealer
Inquiries Invited

Agreement Between Two Companies Will Aid Plastic Pipe Development

ST. PAUL, Minn.—Minnesota Mining & Mfg. Co. and Gustin-Bacon Mfg. Co. of Kansas City, Mo., have announced completion of an agreement whereby the former acquires certain Gustin-Bacon patents and inventions relating to the manufacture of glass fiber reinforced plastic pipe.

The agreement also provides that the two companies cooperate in research and development work concerned with perfecting and improving the glass-plastic pipe together with a line of fittings and couplings.

Gustin-Bacon, one of the pioneer producers and developers of glass fibers, has been actively engaged in the development of glass fiber reinforced plastics since World War II.

Minnesota Mining & Mfg. Co., best known for its "Scotch" brand tapes, "Scotchlite" brand reflective sheeting, abrasives, and adhesives, has had extensive experience in plastics, research, and manufacture.

H. E. Buetow, "3M" president, said his company is interested in manufacturing and selling the new pipe and fittings just as soon as development has been completed and manufacturing equipment is available. Gustin-Bacon may undertake the manufacture and sale at a later date.

"We believe our extensive research and development to date has resulted in processes by which a greatly improved form of glass fiber plastic pipe can be produced by a continuous method," Buetow said.

"These processes, coupled with the

acquisition of Gustin-Bacon's patents and inventions as well as their valued experience in this particular field, will enable us to participate substantially in this fast-growing market."

A. L. Gustin, Jr., Gustin-Bacon's president, said the agreement between 3M and his company pooling the knowledge acquired in the field of plastic resins and glass fibers through their respective research programs will provide the most favorable conditions for early development of an outstanding glass fiber plastic pipe.

"Ever since the advantages of glass fiber reinforced plastics became apparent, we have known that glass fiber reinforced plastic pipe, fully perfected, was likely to replace metallic pipe in many end uses, Gustin stated. "It can be made with extremely light, thin wall sections and yet be strong enough for the highest pressures."

"Another outstanding property is resistance to corrosion from both inside and out without any additional protective treatment. Properly made, the pipe also has excellent dimensional stability."

Detroit Firm To Distribute Century Heating Equipment

CEDAR RAPIDS, Ia. — Century Engineering Corp.'s appointment of George L. Johnston Co., Detroit, as wholesale distributor for Century furnaces, conversion burners, and boilers for the Detroit area has been announced by W. S. Moellering, sales manager, Heating Div.

Jack M. Baragar is general manager of the Detroit firm, and E. A. Cuneo is manager of heating and air conditioning sales. George L. Johnston is president. The firm was formerly Johnston Refrigeration Co.

Reducing Height of Air Space In Walls Said To Cut Heat Loss

DENVER—A decrease in height of the air space in walls was found to lessen the heat loss through the wall. Dust patterns on walls are more pronounced where temperatures of adjacent portions differ by as little as 3° to 5° F., members of the American Society of Heating & Ventilating Engineers learned at their semi-annual meeting here.

The report was presented in a paper on the thermal performance of frame walls by G. O. Handegord, assistant research officer, Div. of Building Research, National Research Council of Canada, and N. B. Hutcheon, professor of mechanical engineering, University of Saskatchewan, Saskatoon, Canada. The study was conducted as part of a program of Cold Weather Wall Research being carried on cooperatively by the university and the council.

The authors had previously prepared a paper on this subject which dealt with the vertical variations in temperatures and heat flow rates resulting from convection in air spaces in frame walls. The air spaces were continuous over the height of the wall. The present paper deals with walls having horizontal blocking at mid-height, and is concerned, as was the first paper, with the deviations of actual heat flow and temperature patterns from those predicted by simple theory.

An important observation of the current study revealed that condensation on wall surfaces will generally be greatest near the flow. It may, however, be greatest at any point where the heat loss through the stud areas is high.

Gerald Stecker Promoted To Trane Co. Controller

LA CROSSE, Wis.—Promotion of Gerald Stecker to controller of The Trane Co., has been announced by D. C. Minard, president.

Stecker, formerly associated with Arthur Andersen & Co., Milwaukee accountants and auditors for five years, joined Trane in 1952 as chief accountant. He has an M.B.A. degree from Harvard's Graduate School of Business Administration.

The appointment of Harold J. Gazeley to succeed Stecker as chief accountant and manager of the accounting department also was announced. Gazeley joined the company last month after four years with Arthur Andersen & Co. He holds a B.B.A. degree from the University of Wisconsin.

Sub-Zero Appoints Firms In Houston, L. A., Minneapolis

CINCINNATI — Appointment of three new representatives is announced by Sub-Zero Products Co. here.

Texas Chemical Engineering Co., Houston, has been appointed to represent Sub-Zero in the Houston industrial area. Los Angeles and southern California will be covered by Industrial Refrigeration Co., Los Angeles. Twin City Plumbing & Heating Co., Minneapolis, will represent Sub-Zero in Minnesota, North Dakota, and South Dakota.

Appointment of the new representatives marks the latest step in the planned expansion of Sub-Zero to meet demand for its industrial chilling machines, the company said.



"Slants on Service" is a "package" devised by the NEWS to meet the needs of readers in the service and contracting business.

Ground Motors To Avoid Dangerous Shocks

"Have you ever laid your hand on the motor of a condensing unit, only to jerk it away as a jolting shock rattled every bone in your body? If so, you have probably noticed that such a thing occurs especially with a motor mounted on a wooden base while you are standing or kneeling on a concrete floor," writes Virgil C. James.

"Of course, what happened was that the motor was insulated from ground by the wooden base, and when you touched it your body became the ground wire. But why wasn't it sufficiently grounded through the neutral wire of the line cord?"

"Well, perhaps the cord was inserted in the wall receptacle backwards, so that actually the wrong side of the motor was receiving the hot current. In that case, reversing the prongs of the plug in the wall receptacle will cure the trouble."

"Our present system of cords, plugs, and receptacles is somewhat unfortunate in this respect, in that we are never sure which is hot and which is the ground wire. In this matter the three-pronged polarized plug-receptacle combination is fool-proof, and should probably be required by code, at least for motor and appliance circuits."

"But the frame of the motor shouldn't shock you like that anyway. No, it shouldn't if the motor is in perfect condition. But on any refrigerator or condensing unit you are called to service, whether for electrical or strictly refrigeration troubles, the motor is apt to be as old and beat-up as the rest of the equipment, and so to have developed little shorts or grounds between the windings and the frame."

"These shorts or grounds would in the course of time become bad enough to cause a burnout, but in the meanwhile are just enough to

delivery a mean shock," James says.

"In some cases, though, you will not get a full-dress shock, but merely a slight tingle, when you touch the motor, compressor, or even, in some cases, the cabinet hardware. This is more apt to be due to a charge of static about the metal, and occurs during certain weather conditions and is absent at other times."

"There was, for instance, a woman whose kitchen had a concrete floor, wooden sink cabinets, and chrome trim strips around the top edge of these cabinets. There was nothing electrical connected to these chrome strips in any way. Yet if she so much as merely brushed against them with her arm, she jumped back with a shriek. She was, of course, grounding the static charge about the strips."

"All this indicates the paramount importance of grounding all electrical equipment, especially such as must be touched by anyone standing on a concrete or other non-insulated floor."

"A good way to ground a motor frame is to loosen one of the bolts that hold the end bell in place, loop the end of a length of bare copper wire (about No. 10) around it, tighten it down, and attach the other end of the wire to a water pipe with an approved type of clamp."

"While you are doing this grounding, completely disconnect the unit from its electrical supply. If it is a domestic box, pull the cord out of the wall receptacle. If it's a commercial job, pull the manual disconnecting switch. If you don't, you stand to get a severe shock while connecting this ground wire," he warns.

"After it is safely connected, then you can touch it with impunity, since now the wire and no longer your body furnishes the primary ground. You don't believe or realize these things until they have happened to you. I know. They have happened to me."



SEE THE MAGIC OF INNER-FIN

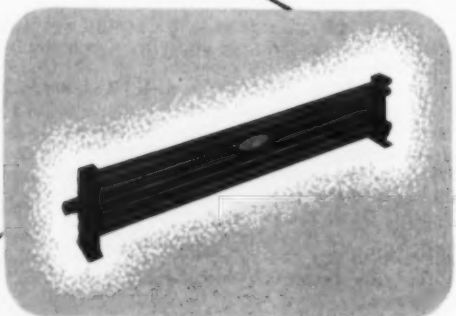
heat-x

Heat-X invites you to have a look at INNER-FIN in action. At the All-Industry Show, two operating displays made of glass will provide a chance to compare for yourself the efficiency and space-saving features of this Heat-X exclusive. In operation will be one of our water chillers used in air conditioning and one of our water cooled condensers... both of INNER-FIN construction.



Free soft drinks will be dispensed from a Heat-X soda fountain cooler. Stop in at Booth No. 503, North Exhibit Hall, and have one on us.

Other Heat-X products on display will be our new water cooler-heater, heat interchangers, a remote air and water cooled condenser and the standard line of Heat-X liquid coolers.



THE HEAT-X-CHANGER CO., Inc.
BREWSTER - NEW YORK

IDEAL
Speed-Freeze
PRODUCTS

BEVERAGE COOLERS AND INSTANTANEOUS DRAFT BEER COOLERS.
(With Refrigerated Faucets)

WRITE
IDEAL COOLER CORPORATION
2953 EASTON AVE. - ST. LOUIS 8, MO.



ANSUL T-FLO DRIER WITH ANDRITE

... picks up moisture faster and holds more moisture than any other refrigerant drier!

Easy to install... easier to replace! Lower inventories — four drier sizes and seven fittings provide 28 combinations of installation.

MANUFACTURERS OF REFRIGERANTS, REFRIGERATION PRODUCTS, INDUSTRIAL AND FINE ORGANIC CHEMICALS, LIQUEFIED GASES, DRY CHEMICAL FIRE EXTINGUISHING EQUIPMENT.



ANSUL
Chemical Company

REFRIGERATION DIVISION - MARINETTE, WISCONSIN



VIEW from front checkout counters in Leon's Food Mart, Lincoln, Neb. shows vegetable-fruit department with refrigerated cases at left. Installed at an angle in the center are six 10-ft. Hill self-serve frozen food cases. Party foods are displayed on top of cases.

Supermarket Layout

Center Gondolas Are Placed at 30° Angle to Walls To Encourage Shopping In All Departments of Modern Market with 147 Ft. of Refrigerated Cases

LINCOLN, Neb.—A new supermarket with 174 lin. ft. of refrigerated self-service display cases and all refrigerated storage at street floor level has been placed in operation at 2200 Winthrop Rd. by Leon A. Adelson.

Operating as Leon's Food Mart, the super was designed to serve the needs of residents of one of Lincoln's finer new residential areas, and initial response to the air conditioned store has been "terrific," according to the manager. The market uses Hill cases.

CENTER GONDOLAS AT ANGLE

All center gondolas in the 67 by 112-ft. super were placed at a 30° angle with the walls to encourage shopping in all departments. The first cabinets seen by the customer are six 10-ft. self-service frozen food cases. These have been placed back-to-back just beyond the three front high-speed checkout counters at the same angle as the dry-grocery gondolas.

The six cases form a 30-ft. vending

section totaling 60 ft. Adelson has used the tops of the cases to display party foods, and he declared that the arrangement has been phenomenally successful. Party foods tie in well with frozen foods and ice cream, he has found.

SHADOW-BOX PICTURES ENHANCE DISPLAY

Prominence of the display has helped boost both frozen foods and party foods several times beyond the volume attained in the store's old location. Appeal of the display is enhanced by shadow-box pictures of food items in full color on back bars of the six cases, extending the full 60 ft.

The party food department includes an unusually wide selection. Customers may pick from such items as mints, fruit cakes, fancy biscuits, breads, and canned breads, grape and lime juice, mixers, grenadine syrup, packaged nut meats, canned sea foods, smoked fish, canned bacon rind, croutons, smoked and canned oysters,

cheese sticks, caviar, salmon hors d'oeuvre, shrimp, ham-and-egg paste, fancy cheeses, and canned meats of all types in deluxe brands.

Ice cream cones, sundae toppings, and similar items related to ice cream are displayed on top of the ice cream section of the frozen food cases. A lighted candy vending case is located at one end of the frozen food section, and portable metal racks for pretzels, cheese chips, potato chips, etc., at the other end. The grocer stated that both frozen foods and party foods now rank among his fastest growing and most profitable departments.

MEAT SECTION IS DIVIDED BETWEEN SERVICE, SELF-SERVICE

The meat section is located at the back of the floor. Twenty lin. ft. of cases have been assigned to service meats, and 24 ft. of self-service cases to pre-packaged meats.

Adelson said this alignment was made in keeping with customer preferences, and that it will be a simple matter to convert to all self-service meats if the demand so dictates.

A wall above back of the service meat section houses the pre-packaging room for self-service meats. Customers may view the pre-packaging operation behind a glass riser. A barbecue machine is among the equipment visible to the public in the meat department.

NORTH WALL HAS DAIRY CASES

North wall of the super is taken up by a 20-ft. multiple-shelf self-service case for dairy products, adjoining 40 lin. ft. of self-service cases with humidity control for fresh vegetables and fruits. The vegetable-fruit cases have slanting, mirrored back bars, and all refrigerated vending cases in the store have concealed fluorescent lighting for more attractive display.

Service stations for weighing, packaging, and price-marking purchases of fruits and vegetables are located in the broad aisle facing the vegetable-fruit department. These stations have facilities for waste disposal and easy access to paper bags, wrapping paper, and string.

In line with the stations are small display fixtures for spotting seasonal fruits and vegetables and specials. These are made of the same blonde wood as other wooden fixtures in the supermarket, including the checkout counters.

MOST FIXTURES HAVE UNITS IN BASEMENT

All vending and storage facilities have their refrigeration units housed in two banks in the basement, with the exception of two small self-contained fixtures. The latter include a coin-operated machine for vending soft drinks to be consumed on the spot, and a small case for frozen juices which can be moved around and plugged in at each of several locations.

Back of the meat department, and separated from the selling floor by a partition with two wide doors, is the storage and vegetable preparation section. Installed here are a 20 by 12-ft. walk-in cooler for meats, and an 8 by 10-ft. walk-in for vegetables, a walk-in of approximately the same size for dairy products, and a Hill sharp freezer for storage of frozen foods. All cold storage facilities are

Commercial Refrigeration

close to the loading dock, to eliminate thawing and extra steps.

The basement houses 11 Copeland compressors serving the various refrigerated vending and storage facilities on the main floor. Eight of these compressors are mounted together for convenience in servicing, while three larger compressors for storage refrigeration are located in another row directly below the walk-in coolers.

AIR CONDITIONING UNIT LOCATED IN BASEMENT

Also housed in the basement is a 20-ton McQuay air conditioning unit. Cooled air is distributed through the same ducts as heated air from the gas-fired furnace.

The air conditioning system was built-in to provide maximum efficiency in operation. The brick-and-concrete building is heavily insulated. The all-glass front is Thermopane for added insulation and clear vision. Chrome-plated outlets in the acoustic-type ceiling are in-set to enhance the beauty of the supermarket. Extensive use of slim-line fluorescent lighting fixtures not only cuts down on lighting costs but also reduces interior heat in summer.

Basement equipment includes a gas-fired incinerator for wet refuse, along with a conventional incinerator for disposal of paper, etc. A motorized conveyor system runs from the

loading dock and back room to all basement storage areas for dry groceries, paper products, housewares, etc., which do not require refrigeration.

REAR CHECKOUT STAND HANDLES DELIVERY ORDERS

In addition to the three front checkouts, Adelson has installed a fourth checkout at the rear for delivery orders. This location eliminates confusion on the selling floor. He hires a delivery service and charges customers a fee just high enough to pay for the service.

Departments which have been expanded in the new store include dietetic foods, housewares, and drugs and toiletries. Everything is self-service except the 20-ft. service meat section.

The new super is the first of several fine stores planned for the 22nd and Winthrop shopping center. Adelson has off-street parking for 75 cars, with enough adjacent ground under lease for 300 cars.

Electric-eye doors and telescoping shopping carts are typical of the modern type of equipment used by the new supermarket.

MORE INFORMATION?

Use Handy Coupon on "What's New" Page



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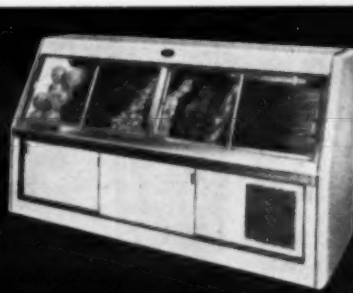
result from Sherer's patented refrigeration system*. Unit running time is reduced as much as 15% and savings up to \$210.00 annually per 10-foot case result.

*Atomized Air—Directional Flow—Recirculated Air

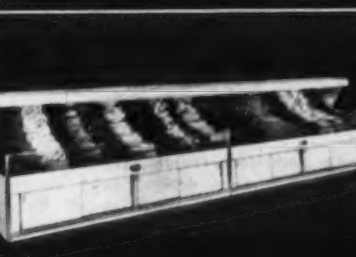
And so your customers get a DOUBLE TAKE—a double chance for profit and saving that makes it easier for you to sell.



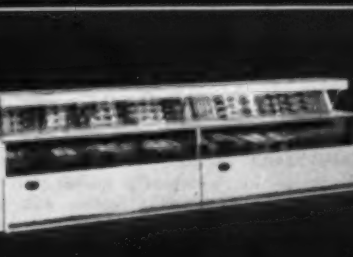
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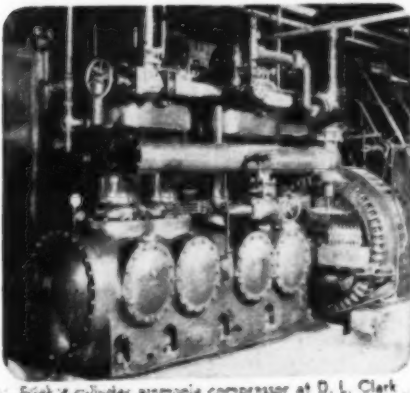
Today, Clark Bars and Clark's Teaberry Gum are famous the world over. Frick air conditioning and cold storage systems play a vital part in maintaining the quality of all Clark products.

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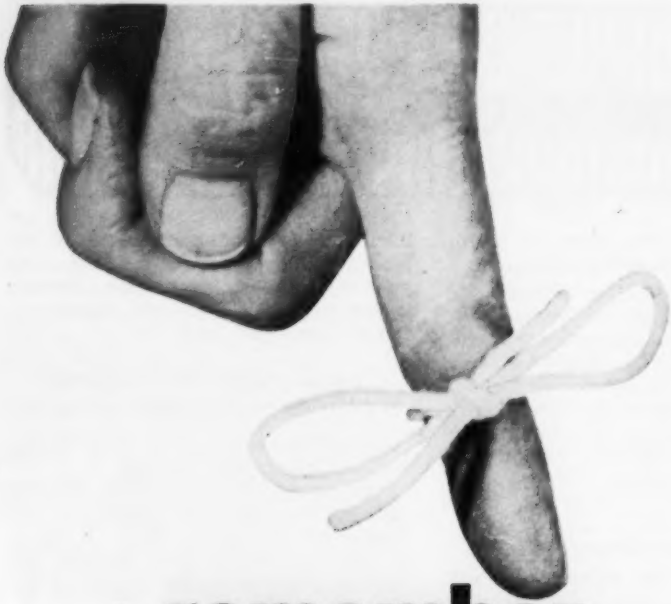
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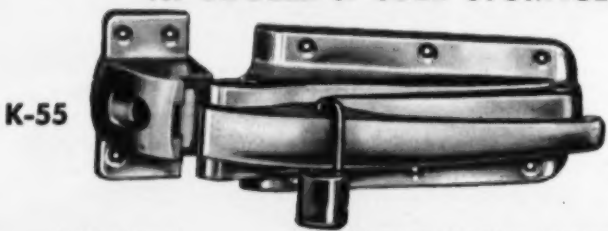
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Refrigeration Problems

and their solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

Expansion Valves For Ultra-Low Temp. Systems (2)

Editor's Note: A reader has raised the question of what type of expansion valves to use for ultra-low temperature systems. The chief problem as explained by Paul Reed in the first part of this article is to get a valve that will function properly through the range of pull-down.

TEV WITH TWO POWER ELEMENTS

There is also a two-element thermostatic expansion valve built especially for ultra-low temperature work and which maintains constant superheat throughout the pull-down.

It has two power elements. One bulb is secured to the inlet or other active portion of the evaporator, and the other bulb is secured to the outlet of the evaporator. Thus it controls superheat directly from temperature difference and is therefore not affected by difference in pressure-temperature relationships.

In a single element thermostatic expansion valve, the rise in pressure at the outlet of the valve when the compressor stops closes the valve. The two-element valve is unaffected by evaporator pressure, so it does not close when the compressor stops. A liquid line solenoid valve is therefore used ahead of the two-element valve to stop the flow of refrigerant into the evaporator when the compressor stops.

The two-element valve is inherently an expensive valve to build, so its price is much higher than single power element thermostatic expansion valves. This higher price is often justified on ultra-low temperature installations.

OTHER CONTROLS

The high-side float has been used extensively on low-temperature applications, particularly those of large size. It has the advantage of being independent of their pressure or temperature. However, it does require a balanced charge, and there is a variation in the ideal charge at different evaporator temperatures. This can be at least partially compensated for by the use of an accumulator.

In the smaller installations, particularly those that ordinarily maintain a constant temperature with infrequent pull-downs, the capillary tube has been used quite successfully. It requires, of course, careful selection both as to length and bore. Pull-down is apt to be somewhat slow, as the capillary tube is primarily a constant-temperature, constant-load device.

Another device consists of a special solenoid or magnetic valve actuated by a temperature control reflecting evaporator outlet temperature.

ORIFICE SIZE AT LOW TEMPERATURES

The capacity of the valve is also of consequence, as capacity for a given orifice size varies with evap-

orator temperature and with the temperature of the liquid entering the valve.

With the liquid at 80° and the evaporator temperature 25°, the expansion valve, whatever its type, must pass 36.5 lbs. of "Freon-12" to produce 2,000 B.t.u. per hour.

If the "Freon-12" to the valve is not subcooled; that is, if it reaches the valve on the -60° evaporator at 80°, 44.5 lbs. per hour must be passed by the valve, so a larger orifice is necessary at -60°.

If the liquid to the -60° evaporator is sub-cooled to -10°, the valve must pass 30.5 lbs. of "Freon-12" per hour to produce 2,000 B.t.u. per hour of refrigeration, so the orifice size and rating of the valve depends not only on the evaporator temperature, but it is also very much dependent upon the temperature of the liquid refrigerant entering the valve.

As in normal temperature applications, the capacity of the expansion valve is also dependent on the pressure difference across the valve. The manufacturer should be able to supply capacity ratings of his valve at various pressure and temperature conditions.

Thermostatic expansion valves for -60° evaporators or below, are "special." The manufacturer of the make of valves that you ordinarily use can probably supply you with a valve that will serve your purpose, but he will need full information, including refrigerant used, pull-down range, the lowest temperature at which the evaporator is to be operated and the load in B.t.u. per hour at that temperature, and the pressure and temperature of the liquid refrigerant entering the valve.

Thon Quality Control Chief At Rochester Products Div.

ROCHESTER, N. Y. — Rochester Products announces the appointment of Raymond A. Thon as director of quality control for all items made by this division of General Motors.

Thon's association with General Motors began in 1915 when he joined an electrical company which later became a General Motors division, transferring to Rochester Products in 1938. He progressed from floor inspector to general foreman of inspection and was assistant director of quality control at the time of his recent promotion.

2 Factory Branch Offices Opened by Barber-Colman

ROCKFORD, Ill.—The Automatic Control and Uni-Flo divisions of Barber-Colman Co. announce the opening of two new factory branch offices, one in Indianapolis and the other in Omaha.

Manager of the Indianapolis office, located at 1537 Central Ave., is Don Horock. Tom Peterson will manage the Omaha office located at 1245 South 13th St.

Opening of these new offices brings to 55 the total number of field offices in the nationwide sales and service organization of Barber-Colman which handle the sale of automatic control and air distribution products.

Kathabar Exhibits Units At Chemical Exposition

TOLEDO—Product processing with air temperatures as low as -100° F. will be featured by the Kathabar Div. of Surface Combustion Corp. at the eighth National Chemical Exposition to be held in Philadelphia, Nov. 30-Dec. 5.

In these applications of low temperature conditioning, several significant features will be emphasized. First, large quantities of air are continuously delivered from the Kathabar humidity conditioning unit to meet ultra low temperature requirements without frost formation on the refrigeration coils.

Second, there is practically no limit to the dewpoints obtainable. Third, the equipment operates independently of room or outside air conditions. Applications of this equipment in the chemical process industries will be presented.

Air Devices Moves Offices

NEW YORK CITY—Air Devices, Inc., manufacturer of filters, diffusers, and exhausters, announced recently that its offices have been moved from 17 E. 42nd St. to 185 Madison Ave., New York 16, N. Y. The telephone number at the new location is MURRAY HILL 6-2050.

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NEW FLO INDICATOR FLAP
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REPRESENTATIVES of trade associations gathered at a meeting of the Air Conditioning & Refrigeration Educational Conference Committee recently in Cleveland. Standing (l. to r.): G. E. Graft, Ranco Inc.; George W. Howe, president, RACCA; E. W. Farr, RACCA; A. Starr Hull, executive secretary, REWA; Ned Mason, REWA; K. B. Thorndike, Detroit Controls Corp.; Paul Reed, RSES. Seated (l. to r.): Fred Weldon, General Controls Co.; W. D. Bayless, NCRSA; H. T. McDermott, international secretary, RSES; George E. Mills, ARI; E. M. Flannery, Bush Mfg. Co., chairman; Ray Kromer, RACCA.

Educational Conference Plans--

(Concluded from Page 1, Column 4) recently with those of RSES in conjunction with educational exhibits.

4. Hours were changes as follows:

Thursday

Speaking program: 9 to 12 and 1 to 3.

Exhibits open: 3 to 6 and 7 to 10.

Friday

Speaking program: 9 to 12 and 1 to 3.

Exhibits open: 3 to 6 and 7 to 10.

Saturday

Speaking program: 10 to 12 noon.

Exhibits open: 12 noon to 6.

Banquet: 7 p.m.

5. The program for Saturday morning will be of a general nature.

The scope of the Conferences will be widened, if present plans are carried through, and a number of ideas were suggested to boost attendance.

The committee will try to secure for the Conferences general exhibits which would demonstrate the opera-

tion of:

1. Typical summer-winter air conditioning and heating installations for cooling and heating through ducts.

2. Typical summer-winter air conditioning and heating installations for cooling and heating of water through pipes.

3. Reverse cycle of heat pump systems.

4. Auto air conditioning units.

Where such exhibits are not forthcoming on the part of individual manufacturers, the Committee will endeavor to secure them through a cooperative exhibit by a number of manufacturers, it was further explained.

NARDA Protests--

(Concluded from Page 1, Column 3)

"I feel that appliance retailing has just about reached the end of the era of domination by the price-cutting, discounting, card-distributing, catalog publishing houses, even in most of the major markets where they prevail.

"In Mr. Kiplinger's article he assured his readers that 'discount houses undercut standard retail prices by 20% to 40% because they eliminate most of the usual store trimmings and concentrate on fast buy and quick turnover.'

"This is a very educational article. It tells us that we can buy at 7½ to 10% reductions by buying in carload lots. The same article that says get recourse from your local distributor says the discounters pick up news of occasional out-of-town opportunities, where wholesalers are ready to deal with out-of-towners because local demand has fizzled.

"The discounter knows how to stock up before prices rise, and unload before they fall, Mr. Kiplinger says.

I suppose that's how he accounts for all those discount house bankruptcies!"

In his letter to Kiplinger, Johnston said, in part:

"We believe you were unfair to those of your readers who are businessmen operating their own businesses and who fall into the category of retailers—those who daily fight against the 'havoc' (as you so aptly term it) worked by the existence of discount houses.

"We believe that you were equally unfair to the other portion of your readership, those who may follow your suggestion that 'discount buying is well worth the effort.'

"Your editorial qualifications of that counsel, to the effect that discount buying involves a certain amount of inconvenience and that full knowledge about the particular article being purchased should be in the possession of the purchaser, are not strong enough to offset the primary implication.

"Too many people, unfortunately, think themselves smart enough to win out over the contributing incon-

veniences, and realize their gullibility only after the damage is done.

"The negative effect of your article must also be considered from the standpoint of our over-all national economy, which should be upheld at all costs, and which currently is struggling against declining military business.

"Definite recognition of the seriousness of the situation has spread afield, and major manufacturers and distributors alike are taking steps to

do their part to whittle down the menace.

"Some major manufacturers, for instance, have worked out a detailed plan to protect themselves against loss of replacement parts by asking all other than regularly franchised servicing dealers to pay in a reserve equal to the value of the part replaced until the validity of the parts-claim is checked. This puts the hardship squarely on the customer who buys an appliance from a discount

house and has nowhere to turn when factory guarantees are at stake.

"For the discount house to save the consumer 40% on a refrigerator, as you say it can, the sales would have to be made at a price below dealer cost. Except on previous year's models, or a rare special model, the dealer does not get as much as 40% markup on refrigerators.

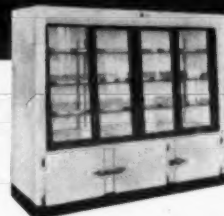
"And it's a rare arrangement indeed that allows 7½ to 10% discount on carload purchases."

Dollar for Dollar, You Can't Equal PUFFER-HUBBARD "Lifetime" REFRIGERATORS

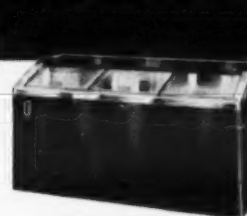
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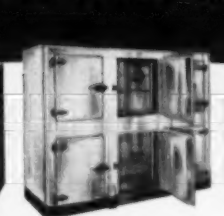
PASS-THRU CABINETS
3 Models—4, 9 & 12
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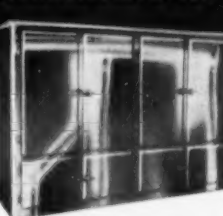
DAIRY-DELICATESSEN
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STORAGE FREEZERS
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REACH-IN CABINETS
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The fellows at the factory will tell you that a large percentage of returned valves are OK. This indicates that most troubles occurring at the valve may be caused by the stuff passing through it. It's possible that a poor oil in the system is sludging or "waxing" and clogging the valve, or that excessive moisture is freezing out in it. By changing a valve, you often remedy the trouble, the system starts up and you get refrigeration. But the cause still remains and sooner or later the trouble returns. Be sure that poor oil is not causing the trouble—change to Suniso—the best in refrigeration oils.

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SUNISO ADVANTAGES • provides adequate lubrication at all temperatures encountered in service • possesses a high degree of stability • won't throw out wax deposits under low temperatures • has extremely low moisture content • resists formation of corrosive acids and carbon under service conditions • separates readily from refrigerant—won't react adversely

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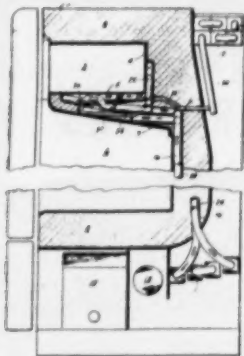
For Further Details... Write Box 4414, Air Conditioning & Refrigeration News.



PATENTS

Week of June 9

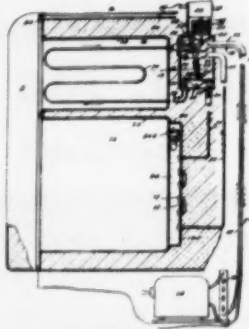
2,641,003. EVAPORATOR FOR UNIFORM PRESSURE ABSORPTION TYPE REFRIGERATORS. Walter L. Edel, Louisville, Ky., assignor to Clayton & Lambert Mfg. Co., Louisville, Ky., a corporation of Delaware. Application March 26, 1949. Serial No. 83,631. 22 Claims. (Cl. 62-99.)



1. An improved evaporator comprising: an evaporator conduit providing a first active passage for the flow of an active stream of gas and evaporating liquid refrigerant in series with a second active passage for the flow of a larger active stream composed in

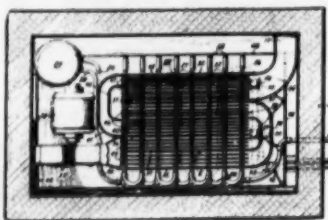
part of the gas and evaporating liquid refrigerant from the first active passage, the average cross-sectional area of the second active passage being larger than that of the first; and another conduit for feeding relatively fresh gas into said second active passage, said other conduit being arranged to bypass said smaller first active passage and connected to discharge fresh gas into said larger second active passage adjacent to the point where said larger passage receives gas from said smaller passage.

2,641,100. MULTITEMPERATURE REFRIGERATING SYSTEM. Glenn Mufly, Springfield, Ohio. Application Aug. 29, 1947. Serial No. 771,181. 20 Claims. (Cl. 62-4.)



1. In a refrigerating system, a refrigerant condensing means, two evaporators arranged to receive liquid refrigerant from said condensing means and to operate a first one within higher and a second one within lower temperature limits, a substance in heat exchange with one of said evaporators having the characteristic of passing through a change of state within the operating temperature range of the last said evaporator, a valve mechanism connected in said system for the purpose of diverting the flow of refrigerant caused by said condenser means, and a temperature responsive element in heat exchange with said substance, said element being connected to actuate said valve mechanism when said substance is cooled to a temperature below its freezing point, whereby refrigerant flow between said condensing means and the last said evaporator is substantially stopped and said condensing means is caused to operate mainly in effecting the cooling of the other of said evaporators.

2,641,111. REFRIGERATION APPARATUS AND METHOD. Robert H. Bishop, Champaign, Ill. Application March 14, 1952. Serial No. 276,603. 3 Claims. (Cl. 62-102.)



1. In a commercial refrigeration unit comprising a food storage box, a blast cooling-unit compartment, a blast cooling unit, and means for circulating air from the cooling unit to the storage box and returning it to the cooling compartment, the improvement comprising a blast cooling unit having a coil housing divided into a plurality of cooling sections serially connected, cooling tubes within said sections, a prime frost collecting surface located adjacent the walls of the cooling compartment externally of the coil housing whereby air returning from the box must first pass over said prime surface and be dehumidified before entering the coil housing, fins on said cooling tubes, said fins being most widely spaced in the first of said sections, and being more closely spaced in each succeeding section, means for drawing air over the prime surface and passing it through said sections, and means communicating from the last section with the box whereby cooled dehumidified air from blast cooling unit is passed into said box.

2,641,113. FREEZER EVAPORATOR, INCLUDING CHECK VALVE IN HEADER. Frank A. Schumacher, Erie, Pa., assignor to General Electric Co., a corporation of New York. Application January 10, 1952. Serial No. 265,813. 4 Claims. (Cl. 62-117.6.)

1. A two-temperature refrigerating system comprising a vertical header divided into lower and upper chambers, a fresh food evaporator, a refrigerating unit supplying refrigerant to one side of said fresh food evaporator and exhausting refrigerant from said upper chamber, the other side of said fresh food evaporator being connected to said lower chamber, a freezer evaporator, one side of said freezer evap-



PROCUREMENT INFORMATION

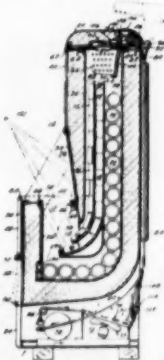
The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing officer under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one.

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Ordnance Ammunition Center, Joliet, Ill.; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices.

DEPARTMENT OF DEFENSE

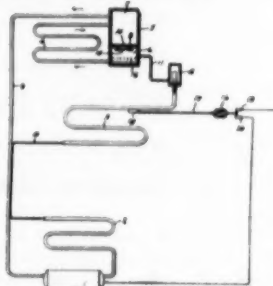
Description	Quantity	Invitation No.	Opening Date
Philadelphia District, Corps of Engineers, 1420 Walnut St., Philadelphia, Pa. Heater-space, non-electric, oil fired, radiant and gravity circulating type, floor installation, thermostatically controlled, 75,000 BTU per hour output.	900	(ENG-36-109-54-85B)	30 Oct 53
General Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pennsylvania Cooler, complete, self contained, electrically operated unit, bubbler drinking water, Shore type, cabinet top provided with basin, drainage facility, Fed. Spec. OO C 00566B (GSA FSS).	200 ea.	3-1753B	4 Nov 53
Tubing, seamless copper, cold drawn 99.9 percent	9000 ft.	2-1754B	3 Nov 53

orator being connected to said lower chamber below the normal level of a liquid reserve therein, the other side of said freezer evaporator being connected to said upper



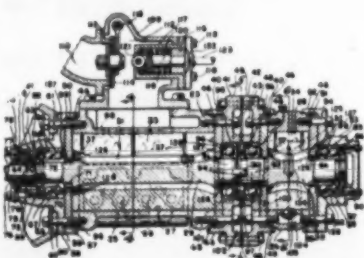
chamber, and means providing controlled communication between said lower and upper chambers operating in response to the operation of said refrigerating unit to permit accumulation of pressure in said lower chamber during operation of said refrigerating unit thereby to supply liquid refrigerant promptly from said lower chamber to said freezer evaporator, and to permit drainage of liquid refrigerant from said upper chamber into said lower chamber during idle periods of said refrigerating unit thereby to replenish said reserve.

2,641,115. REFRIGERATOR - CABINET DEFROSTING. Glenn Mufly, Springfield, Ohio. Application Aug. 9, 1947. Serial No. 767,731. 23 Claims. (Cl. 62-116.)



1. In a refrigerator, a food storage space, a refrigerating system including an evaporator for cooling said space, a door for access to said space, and means activated by the opening of said door for causing said evaporator to act as the condenser of said system for the purpose of defrosting it.

2,641,405. FLUID COMPRESSOR UNIT. John Le Valley, Painted Post, N. Y., assignor to Ingersoll-Rand Co., New York, N. Y., a corporation of New Jersey. Application April 14, 1948. Serial No. 21,026. 9 Claims. (Cl. 230-158.)



1. In a fluid compressor unit, low and high pressure cylinders arranged in end to end relation with respect to each other and each having inner and outer end heads, inlet and discharge passages for the cylinders, rotors in the cylinders for compressing fluid therein, means for introducing a cooling fluid into the fluid to be compressed in the cylinders, a chamber in the opposed surfaces of the inner heads to receive the cooling and compressed fluids from the low pressure cylinder and constituting a supply chamber for the high pressure cylinder, a container for cooling fluid to receive the cooling and compressed fluids discharged by the high pressure cylin-

der and having a discharge conduit, a conduit for conveying cooling fluid from the container to the cooling fluid introducing means, and means in the discharge conduit for straining the cooling fluid from the compressed fluid flowing therethrough.

Week of June 16

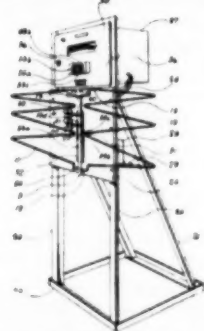
2,641,579. AZEOTROPIC REFRIGERANT COMPOSITION OF MONOCHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE. Anthony Francis Benning, Woodstown, N. J., assignor to E. I. du Pont de Nemours & Co., Wilmington, Del.

1. A low-boiling refrigerant composition which consists of a mixture of monochlorodifluoromethane and chloropentafluoroethane in which the mole percent of monochlorodifluoromethane is 63.

2,641,580. AZEOTROPIC REFRIGERANT COMPOSITION OF 1,1-DIFLUOROETHANE AND MONOCHLOROPENTAFLUOROETHANE. Hamilton Lewis, Woodbury, N. J., assignor to E. I. du Pont de Nemours & Co., Wilmington, Del.

1. A low-boiling refrigerant composition which consists of a mixture of 1,1-difluoroethane and monochloropentafluoroethane in which the mole percent of monochloropentafluoroethane is 69.

2,641,929. REFRIGERANT TESTING SYSTEM. Floyd R. Eck, Des Plaines, Ill., assignor to Admiral Corp., Chicago, Ill.

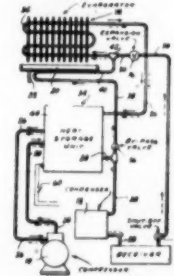


1. An apparatus for determining the level of a fluid in a conduit which comprises a support for supporting the conduit in an upright position, electrical means for supplying a current to said conduit connected thereto at spaced points along the conduit for heating the conduit in a zone extending above and at least to the supposed fluid level, thermocouples conductively connected to said conduit responsive to the heat of the conduit at different parts of said zone and means to determine the voltage output of said thermocouples.

2,641,908. REFRIGERATOR DEFROSTING MEANS. Louis F. La Porte, Wellston, Mo., assignor to Francis L. La Porte, Burlingame, Calif. Application Sept. 2, 1950.

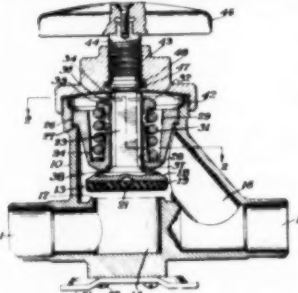
1. In combination with a refrigeration system including a compressor, a con-

denser, and an evaporator, means for defrosting said evaporator without turning off the compressor, said means including a container at least partially filled with a



quantity of liquid, heat-supplying means for maintaining said liquid at a high temperature, a first coil submerged in the liquid and formed in the discharge line of said compressor, a second coil submerged in the liquid and formed in the suction line of said compressor, a flow retarding device of the character described interposed in the suction line within the container between the second coil and the evaporator for vaporizing the refrigerant passing therethrough from said evaporator, a vapor line in communication at one end with the inlet portion of the evaporator coil, and a normally closed valve on the other end of the vapor line and in communication with the compressor discharge line for diverting the normal flow of discharge gases into said vapor line.

2,642,355. PACKLESS VALVE. George O. B. Lindgren, Willoughby, Ohio, assignor to The Weatherhead Co., Cleveland, Ohio.



1. A valve comprising a body formed with a valve seat therein, a reciprocable plunger, a removable guide for the plunger threadable into the body and including a back seat for the plunger, the plunger being reciprocable in the guide to engage the valve seat and back seat alternatively, and being rotatively interlocked with the guide in all positions so that the guide may be threaded into the body by rotation of the plunger, a ring rotatively interlocked with the plunger in both directions of rotation and configured for application of wrench whereby rotation of said ring rotates said guide through said plunger, and a spring compressed between the guide and the ring to urge the plunger toward the back seat.

HE CASHES IN



PAUL H. HAUPTERT

Paul H. Hauptert, President of Hauptert Appliances, Toledo, Ohio, says:

"I've been in the appliance business ever since 1929 and have been a reader of AIR CONDITIONING & REFRIGERATION NEWS for a long, long time. At this time I sell Frigidaire, General Electric, and Kelvinator refrigerators and a full line of ranges, dishwashers, and other appliances.

"The News is a well-balanced newspaper that gives me the news of what's going on . . . new products, new sales and promotion plans . . . prices . . . government news, etc.

"Out of the News I get sales and promotion ideas that I am often able to cash in on.

"I find the editorials very informative and helpful and get quite a kick out of the weekly 'INSIDE DOPE' column.

"My salesmen also enjoy it and in my opinion every businessman in the appliance field would find it well worth his time to read it every week. At least I have found it so."

"Look twice—it's worth the price!"

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Carrier Notes Increase In Number of Large Air Conditioning Installations

SYRACUSE, N. Y. — Noting a marked upturn in the market for "big" air conditioning, Carrier Corp. reported recently that its orders for central air conditioning and refrigeration systems through the end of August were 42% above those for the same period in 1952.

Charles V. Fenn, vice president and general sales manager, Machinery and Systems Div., stated that this year's rise in orders is nearly four times the average annual growth in the corporation's sales of such equipment since World War II. The yearly increase during the seven years following 1945 averaged about 11%, he said.

Contributing substantially to the current upward trend are the owners of more than 60 multi-story office buildings who have contracted for Carrier installations during just the past 90 days, Fenn reported.

NEW AND OLD BUILDINGS

The list includes not only many new projects, but for the first time a substantial number of large existing structures which are undergoing modernization.

Thirteen of the orders are for New York City.

Other purchasers of large central station equipment this year have ordered Carrier installations for industrial plants, stores, hospitals, hotels, churches, schools, laboratories, and ships, for both production and sales or comfort purposes.

Among the major recent office conditioning contracts is one for the existing Irving Trust building at 1 Wall

St., New York City, which will have over 1,500 tons of capacity—one of the biggest air conditioning systems ever installed as one project in an existing building.

The new 21-story Texas National Bank building, Houston, will have an equally large system, and the new 19-story Denver Club building will set a new record for Denver, as the largest air conditioned structure in that city.

Other important projects include the State Insurance Fund building—first New York State office building to be air conditioned, the twin Diesel Construction buildings, the Fred F. French building, the 261 Madison Avenue building, and a number of floors of the Borden building, all in New York City.

Jobs in other cities include the massive Union Central Life Insurance building, Cincinnati, an additional 1,000-ton refrigeration system for portions of the First National Bank of Chicago, and the new McShain building, Washington, D.C.

EXISTING BUILDINGS BEING FORCED TO MODERNIZE

An important element in this boom in "big" air conditioning is the fact that in many large cities the trend toward new completely air conditioned buildings is forcing owners of structures without air conditioning to modernize as the only way to secure first class tenants and employees, Fenn stated.

Virtually every big office building erected since the war has included central station air conditioning

throughout, according to the Carrier executive.

In addition, he said, three very large recent contracts for completely conditioning existing buildings—the America Fore building at 80 Maiden Lane, New York, the Standard Oil of Indiana building, Chicago, and the Public Ledger building, Philadelphia—have "broken the dam" on air conditioning of older structures.

MODERNIZING FEASIBLE

"In many cases, it has proven economically more feasible to modernize an older building than to build a new one," Fenn pointed out. "Also, the Public Ledger building contract, which is now completed, has shown it is possible to install an entire large central system with most of the work done during normal hours and without serious disturbance to occupants."

"In this 26-year-old building, a complete year-round conditioning system including three big refrigerating machines totaling 1,500 tons capacity were installed while some 3,500 employees continued on their jobs as usual and 16,000 people passed through the building daily."

The techniques for this were worked out in conditioning the Warwick hotel in Philadelphia several years ago without loss of rooms from the rental list. They involve the use of small-diameter, high velocity air conduits which can be extended vertically from floor to floor and do not require extensive sheet metal work on the job.

This Carrier "Conduit Weather-master" application gives individual control of the weather in each room and is similar to the systems installed in such well-known new buildings as the United Nations Secretariat and Lever House in New York City.

G-E Div. Appoints Kentler Credits, Collections Mgr.

BLOOMFIELD, N. J.—Donald W. Kentler has been appointed manager of credits and collections of General Electric Co.'s Air Conditioning Div., according to C. G. Klock, manager of finance of the division.

He replaces Franklyn G. Zimmerman who has been made a consultant in the treasury services division.

Prior to his new appointment, Kentler was regional credit manager.

Minard, W. J. Hood Elected Trane Subsidiary Directors

LA CROSSE, Wis.—Changes in the board of directors of its Canadian subsidiary in Toronto have been announced by the Trane Co.

Donald C. Minard and Wayne J. Hood have been elected directors to replace Reuben N. Trane, company founder and chairman of the board, and Frank Hood, treasurer. Minard and Hood are president and vice president, respectively, of the La Crosse company.

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EXPERIENCED IN THE FIELD OF AIR CONDITIONING

The man we want must have both field and factory training. If you are presently engaged in this kind of work, and wish to participate in the growth and prosperity of a young, progressive organization, write to F. W. McKenna, Chief Engineer, 1819 So. Hanley Rd., St. Louis 17, Mo., for a personal interview.

Mr. McKenna will be in CLEVELAND from Nov. 8 through Nov. 11, at the HOTEL HOLLENDEN

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POSITIONS AVAILABLE

MANUFACTURER OF plate coils has territories open for manufacturers' representatives in following territories: Indiana, Kentucky, E. Mississippi, N. Carolina, N. Dakota, Ohio, S. Carolina, S. Dakota, Tennessee, W. Pennsylvania, Wyoming. Advise present lines now being handled and exact territories now being covered. DEAN PRODUCTS, INC., 1042 Dean Street, Brooklyn 38, New York.

AIR CONDITIONING ENGINEER—Commercial and industrial. Competent in load estimating, equipment selection and application up to 150 tons. Exceptional opportunity in Hartford, Connecticut, with Carrier distributor. Write, giving complete experience, education, salary desired, references, availability, etc., to warrant interview. W. O. Gilroy, THE GEORGE ELLIS COMPANY, 3000 Main Street, Hartford, Connecticut.

MANUFACTURER'S REPRESENTATIVES wanted. Our sales program for 1954 provides for the establishment of representatives in several desirable territories. Complete line refrigerated display and storage fixtures, including latest design self-service models for supermarket; also bakery refrigerators. Contact dealers, distributors, and food chains. Visit our display at the All-Industry Exposition, Cleveland, Booth 554. Ask for A. T. Mickel, Sales Manager, or write our office direct if you will not be at the Cleveland show. Give complete details as to experience and industry references in first letter. FEDERAL REFRIGERATOR MFG. CO., P. O. Box 465, Waukegan, Wisconsin.

MANUFACTURER'S REPRESENTATIVES, territories available, for new Cooler Cub water coolers and circulating liquid type coolers. Extremely attractive prices. Advantages in size, weight, method of construction. Give full background and territory, or visit us at Booth 812, 8th All-Industry Exposition, Cleveland. REMCOR PRODUCTS COMPANY, 321 E. Grand Avenue, Chicago 11.

AIR CONDITIONING ENGINEER. Large manufacturer of heating and air conditioning equipment has opening in engineering department for an engineer with experience in design, specification, and installation of residential and commercial air conditioning equipment. Air conditioning program is being expanded, and opportunity for the proper man is limited only by his ability. Please state qualifications and salary desired in letter. Our organization knows of this advertisement. Replies held in confidence. BOX 4415, Air Conditioning & Refrigeration News.

SALES ENGINEER—Wholesale refrigeration and air conditioning. Experience in contacting servicemen and contractors. Engineering ability in both refrigeration and air conditioning necessary. Good opportunity. Western location, small territory. Give full details with references and recent photograph. Write BOX 4416, Air Conditioning & Refrigeration News.

ENGINEER, DESIGN and production, for air conditioning and reverse cycle of refrigeration for heating. Also engineer for low temperature refrigeration to -200° below. BOX 4417, Air Conditioning & Refrigeration News.

WANTED—CHIEF engineer, experienced in design and development of fan and blower equipment. We are one of the well-established and leading manufacturers in the industry, and our employees know this advertisement is appearing. Excellent opportunity. We are located in the Midwest. State experience and qualifications. Reply to BOX 4418, Air Conditioning & Refrigeration News.

DISTRICT SALES supervisor wanted: We can offer an experienced commercial refrigeration sales supervisor an attractive proposition in the Midwest territory. Primary job would be selection of new distributors and dealers, and working with those already selling our display and storage refrigerators. The ability to help train new salesmen, actually showing them how to close a sale, would be an important asset to the man we want. If selected and you prove yourself, the way is open for earnings in excess of industry average for similar work. BOX 4419, Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

CHRYSLER AIRTEMP compressor bodies needed for reoperation process. Top prices paid and we pay freight. Convert your old or junked units into cash. Give serial and model numbers. A. S. JOHNSON COMPANY, INC., 1240 9th Street, N. W., Washington 1, D. C.

EQUIPMENT FOR SALE

ATTENTION SERVICEMEN — Send for our 1953 Catalog. Relays, expansion valves, controls, dehydrators, V belts, open & hermetic units. All new merchandise at great savings up to 50%. Sold on Money Back Guarantee. WALTER W. STARR REFRIGERATION, 2833 Lincoln Ave., Chicago 13, Illinois.

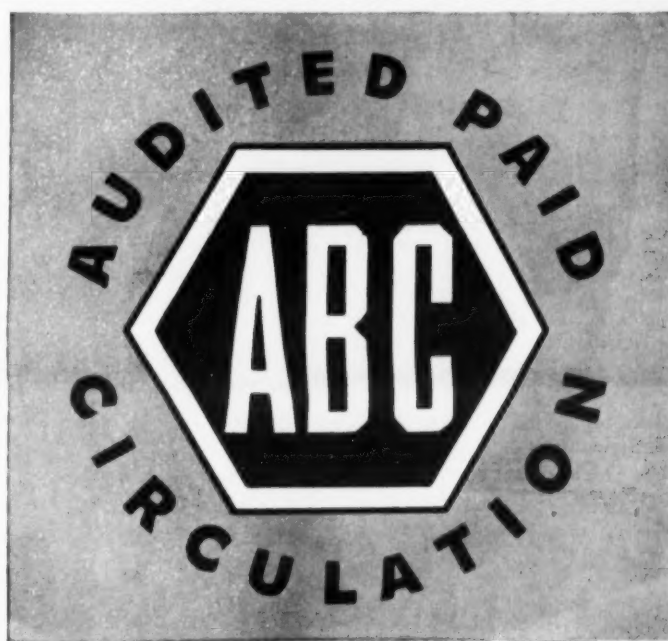
FRANCHISES WANTED

MIDWEST SALES representative, with headquarters in Chicago, can service one additional line with established trade that is capable of expanded sales. We can talk it over in Cleveland. BOX 4420, Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

MANUFACTURER'S REPRESENTATIVE — Chicago. Well-established manufacturers' representative in Chicago area is interested in representing an additional manufacturer of component parts to be sold to air conditioning and refrigeration manufacturers in our territory. We have four outside salesmen who are technically qualified to engineer your products properly. If you have a quality product and production capacity, we can assure you of substantial volume from best accounts. BOX 4422, Air Conditioning & Refrigeration News.

FOR SALE—Established business in food market equipment, including sales franchise of leading refrigerator case manufacturer. Location, Southern California. Good opportunity for experienced party to acquire going business at reasonable cost. Owner retiring. BOX 4413, Air Conditioning & Refrigeration News.



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Three thousand four hundred and fifty advertiser, agency and publisher members of the Audit Bureau of Circulations have a voice in establishing and maintaining the standards responsible for the recognition of this emblem as the Hallmark of Circulation Value. It represents the standard of value that these buyers and sellers of advertising space have jointly established as measurement for the circulation of printed media.

The basis for arriving at the advertising value of a publication is the Bureau's single definition of net paid circulation. With this as the standard, the circulation records of A.B.C. publisher members are audited by experienced circulation auditors. As specified in the Bureau's Bylaws, A.B.C. auditors have "access to all books and records."

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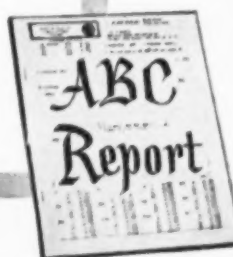
publisher's circulation records that are painstakingly checked by auditors and the resulting data are condensed and published in A.B.C. Reports.

Experienced space buyers use the audited information in A.B.C. Reports as a factual basis for their decisions in evaluating, comparing and selecting media. The FACTS in A.B.C. Reports for business publications include: • How much paid circulation • How much unpaid distribution • Occupational or business breakdown of subscribers • Where they are located • How much subscribers pay • Whether or not premiums are used • How many subscribers in arrears • What percentage of subscribers renew.

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AIR CONDITIONING & REFRIGERATION NEWS

A.B.C. REPORTS — FACTS AS A BASIC MEASURE OF ADVERTISING VALUE



NEW Gibson 30-in. electric range.

Gibson Models--

(Concluded from Page 1, Column 2) for the development of Gibson sales for each dealer in his own trading area."

The company said it is making five sizes of air conditioners, including a 1-hp. unit for rooms up to 825 sq. ft.; a deluxe ¾-hp. unit for rooms up to 580 sq. ft.; a standard ¾-hp. unit, at a suggested retail price of \$289.95, for rooms up to 500 sq. ft.; a ½-hp. unit for rooms up to 425 sq. ft.; and a ¼-hp. unit for rooms measuring up to 300 sq. ft.

These five basic sizes are available in a total of nine models.

In addition to the \$289.95 price for the standard ¾-hp. models 7711 and 7721, Gibson listed these other suggested retail prices:

Model 3311, ½ hp., \$229.95; model 5011, ½ hp., \$319.95; model 7511, ¾ hp., \$379.95; model 7611, ¾ hp., \$379.95; model 7521, ¾ hp., \$389.95; model 1021, 1 hp., \$459.95.

Describing operation of the air conditioners, Gibson said cooled air is directed upward from controllable "Top-Air" vents, then settles naturally to all parts of the room.

"Gibson conditions air eight ways," the company stated. "Gib-Sun-Air" ozone lamp kills bacteria and freshens air, making it odor-free. Gibson models exhale stale air, wring excess moisture from air, breathe in fresh air, filter it, refrigerate the air, and circulate it draft free.

"In cool weather, the Gibson warms the air. The change-over from hot weather to cool weather operation is provided by a flick of a switch."

Controls are hidden from sight in the cabinet. The in-the-room cabinet of the 1-hp. unit is finished in "Gibson Moderne Mahogany" baked enamel. The deluxe ¾-hp. unit is available in either Moderne Mahogany or "Gibson Baffin Beige."

Other features include an "extra

thick" filter to give relief from airborne irritants and pollens, a hermetically-sealed system, and exteriors of weatherproof, rustproof galvanized steel.

Featuring more baking space, the new Gibson 30-in. electric range carries a suggested retail price of \$199.95. It is said to combine a big oven with big-range features to meet the needs of either large or small families.

A "super-heat" oven—measuring 25 by 15 by 20 in.—is large enough to bake an entire meal for 18 persons, according to the company. The oven is automatic, with a window in the door. The high-speed broiler "offers fast radiant heat."

The range has four seven-speed surface units. Work space is centered between the surface cooking units and like the remainder of the exterior, is made of acid and chip resistant porcelain.

Chrome handles are insulated and the oven is insulated on all six sides. A concealed oven vent helps to eliminate staining of walls.

Gibson said its new marketing and dealer development program "maps out each trading area, sets up the sales goal and the funds, and allocates the funds to specified newspapers and TV stations."

Small Elected--

(Concluded from Page 1, Column 2) room and home air conditioning units and oil burners.

Small, formerly vice president and executive assistant to the president of Emerson, resigned that position in November, 1950, to serve as chairman of the Munitions Board until the end of 1952. At that time, he was elected vice president of Pressed Steel Car Co., Inc., in which capacity he served until his resignation to accept the Quiet Heat post.

Small has an extensive record of distinguished service to the United States as well as an impressive industrial background.

He has held the posts of deputy director of the Army-Navy Munitions Board and later became executive officer of the War Production Board. During 1945 and 1946, he was national administrator of the Civilian Production Administration, the agency that succeeded the War Production Board.

In addition to the industrial posts noted above, Small has been president of Maxson Food Systems, Inc. and executive vice president of Dry-Ice Corp. of America.

A graduate of the U. S. Naval Academy, he saw service in both World Wars.



GIBSON'S new ¾-hp. window conditioner.

DeVlieg, Ex-Kelvinator Official Succumbs at 67

DETROIT—Ray A. DeVlieg, 67, until recently vice president in charge of manufacturing of Nash-Kelvinator Corp., died Oct. 15 at his home here.

Less than a month ago, DeVlieg had resigned but announced he would continue with the company in a consulting capacity. He joined the firm in 1936.

A top executive in several leading companies, DeVlieg had a distinguished career extending over nearly 50 years.



SHOWN comparing the "old" original Frigidaire room cooler with the new 1954 model air conditioner is Mason M. Roberts (left), Frigidaire general manager and General Motors vice president, and William F. Switzer, manager of commercial refrigeration and air conditioning sales.

Frigidaire Room Cooler Line for '54--

(Concluded from Page 1, Column 4) the first time during special sales meetings for distributors and branch offices in 42 cities from coast to coast.

The Twin series models of room units each has two complete refrigeration systems, with rotary-type "Meter-Miser" compressors.

"This design gives the effect of two air conditioners in one and is more economical and flexible," the company said, "because one or both of the systems can be operated at the user's discretion, depending upon outside weather conditions."

The high-capacity centrifugal blower-type fan is housed in a section behind the large aluminum finned cooling coil and surrounded by special sound-absorbing insulation. It is claimed that this type of design and fabrication provides unusually quiet operation.

Return air is brought into the unit along the bottom front edge of the cabinet just ahead of the full-length air filter. Fresh outside air may be pulled into the room by means of a conveniently located damper control.

Opposite this control is the master switch, which is used to operate the cooling systems and fan. The fan can be operated alone if desired. Smoke and stale air can be exhausted from the room by opening a small panel on top of the cabinet.

The Super series models are similar in appearance, design, and operation except they are not as wide, because each has only one Meter-Miser refrigeration system.

The Super series units are available for 115-volt operation only. The Twin units are available for 115, 208, and 230-volt service, according to the company.

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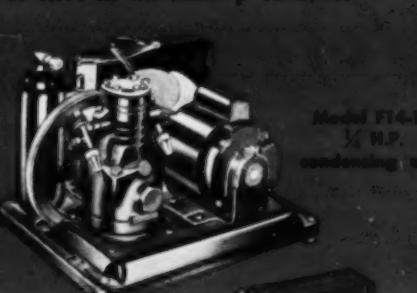
Model 28812, ¾ H.P. unit, condensing unit.



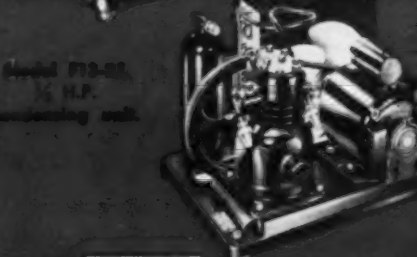
Model 28812, ¾ H.P. unit, condensing unit.

SELF-CONTAINED

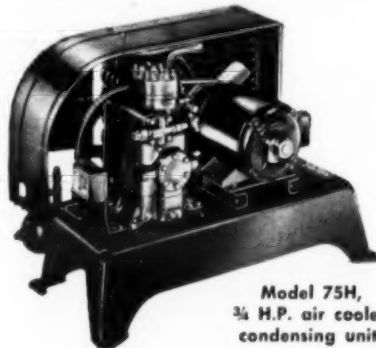
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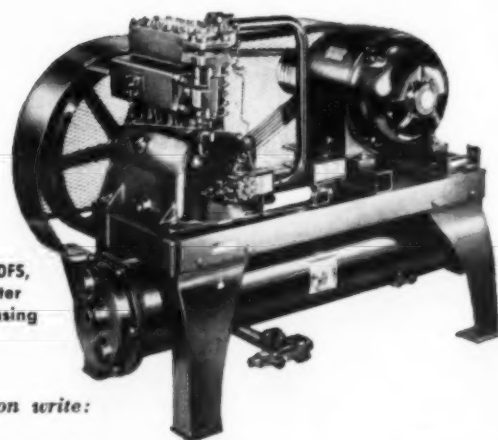
Model 714-12, ¾ H.P. condensing unit.



Model 714-12, ¾ H.P. condensing unit.



Model 75H, ¾ H.P. air cooled condensing unit.



Model W1000F5, 10 H.P. water cooled condensing unit.

REMOTE

Units, either air cooled, water cooled or combination air-water cooled. Complete range of sizes from ¼ to 15 H.P.

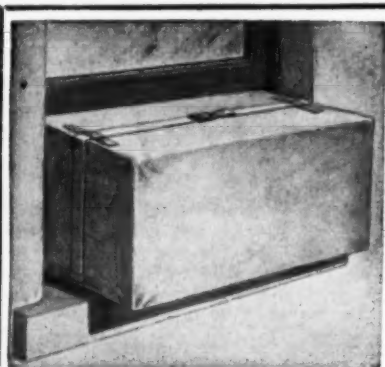
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